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Synopsis of North American TRICHOPTERYGIDÆ.

BY REV. A. MATTHEWS, Gumley, England.

In the following synopsis I have included all the species which have hitherto been discovered throughout the whole continent of North America. Although the work has especial reference to the Trichopterygidæ of the United States, yet it is very probable that many of the tropical species will eventually occur in the more southern portions of that extensive region, and if this should happen, their descriptions will prove of much help to the student in recognizing his captures. There can be no doubt but that the present list represents but a small part of the real number of American Trichopterygidæ, since seventy-six species have been found in Great Britain and Ireland, ninety-one, the number described in the following pages, can scarcely exceed a tenth part of those which inhabit the vast continent of North America.

The Trichopterygidæ are probably the most extensive Family of the whole Order of Coleoptera. In localities previously unexplored no one has ever paid even a moderate attention to their pursuit without discovering a multitude of unknown forms; every collection received from such quarters contains a vast majority of new species; indeed, in the aggregate of those which have come under my own notice, the average of new species would probably amount to four-fifths of the whole number.

To say, as has often been asserted, especially in the case of Col. Motschulsky, that species have been multiplied without sufficient grounds of distinction, is simply absurd, and only proves a total ignorance of the subject in question. Their specific difference is sufficiently obvious to any careful observer, even previously inexperienced in the investigation of Trichopterygidæ, to enable him to separate correctly, and arrange in species any miscellaneous mass of specimens. The truth of what I have just said was proved in a very striking manner not long ago. My lamented friend, Mr. Crotch, an ardent and very successful collector of Trichopterygidæ, left at his death a host of these insects, "*rudis indigestaque moles*," in a state of utter confusion; these were examined and arranged *in species* by Dr. LeConte and Dr. Horn, and subsequently transmitted to me for determination. I found them most accurately separated, and do not remember having detected a single error.

Since the greater part of this essay was written, many species have been added to the list by the recent discoveries of Messrs. Ulke, Cham-

pion and others. The descriptions of these will be found in their proper places, but to the "Synoptic Tables" of Trichopteryx and Ptenidium I have added them as an appendix, being unwilling to upset the whole of the previous arrangement by the insertion of so many new species. The fact of these recent discoveries will also account for a want of uniformity among the descriptions; the species especially belonging to the United States I have described in detail, in Latin as well as English, but such as have been found only in Central America are merely characterized in a manner sufficient, I believe, to ensure their future identification.

The Tribes and Genera have been arranged in accordance with the new System of Classification, in which the Trichopterygidæ immediately follow the Staphylinidæ, and for that reason I have commenced with the Hydroscephina. I feel convinced that Hydroscephala is merely a Tribe of Trichopterygidæ, and not a separate Family. In all its anatomy, and especially in the perfectly normal form of the wing, its affinity to the Trichopterygidæ is far too strongly marked to admit of its separation from that Family. The Trichopterygina naturally follow the Hydroscephina, and the Ptiliina lead from them into other Clavicorn Families.

Synoptic Table of Tribes and Genera.

Habits aquatic.....	HYDROSCAPHINA.
Habits terrestrial.	
Elytra truncate.....	TRICHOPTERYGINA.
Elytra entire.....	PTILIINA.
Elytra truncate.....	TRICHOPTERYGINA.
Antennæ very short, 9-jointed.....	Limulodes.
Antennæ elongate, 11-jointed.	
Pronotum widest at the base.	
Base of pronotum arcuate.....	Myrmicotrichis.
Base of pronotum not arcuate.	
Ventral segments 7.....	Pteryx.
Ventral segments 6.	
Posterior coxæ very widely separated; mesosternum scarcely carinate.	Ptinellodes.*
Posterior coxæ moderately separated; mesosternum evidently carinate.	Trichopteryx.
Pronotum widest before the base.	
Mesosternum carinate.....	Smicrus.
Mesosternum not carinate.	
Body opaque, abdomen moderate.....	Nephanes.
Body translucent, abdomen very long.....	Ptinella.

* In *Ptinellodes* the thorax of ♂ is dilated above the base.

- Elytra entire.....**PTILIINA.**
 Pronotum widest at the base.
 Pygidium invisible.....**Nossidium.**
 Pygidium visible beyond the elytra.
 Posterior angles of pronotum elongate.....**Throscidium.**
 Posterior angles of pronotum not elongate.....**Nanosella.**
 Pronotum widest before the base.
 Base of pronotum fitted to the shoulders of the elytra.
 Metasternum extending to the sides of the body.
 Pygidium visible beyond the elytra.....**Ptilium.**
 Pygidium invisible.....**Ptenidium.**
 Metasternum not reaching the sides of the body.
 Pronotum not constricted at the base.....**Motschulskium.**
 Pronotum constricted near the base.
 Pronotum very deeply sulcate.....**Millidium.**
 Pronotum not sulcate.....**Micridium.**
 Base of pronotum superincumbent on the shoulders of the elytra.
 Actidium.

TRICHOPTERYGIDÆ.

HYDROSCAPHINA.**HYDROSCAPHA.**

LeConte Trans. Amer. Ent. Soc. 1874, p. 45.

BODY conic, very elongate.

ANTENNÆ very short, 8- or probably 10-jointed, apical joint alone in-crassate, apparently composed of three amalgamated articulations.

HEAD sessile, deflexed.

PRONOTUM short, much dilated at the base.

ELYTRA truncate, very much attenuated towards the apex.

ABDOMEN very long, in form like *Tachyporus*, retractile, and therefore in dried specimens scarcely visible beyond the elytra.

MESOSTERNUM broadly carinated, carina anteriorly acuminate.

METASTERNUM large, transverse, not extending to the sides of the body.

VENTER 3 segments, apical segment deeply emarginate, containing a retractile laminated apparatus for swimming.

LEGS robust, posterior tarsi very long.

POSTERIOR COXÆ widely separated, broadly laminate.

H. natans LeConte, Trans. Amer. Ent. Soc. 1874, p. 45.—L. c. abdomen retracted, 1 mm.; abdomen extended, 1.75 mm.—Conic convex, very shining, piceous very sparingly clothed with short griseous hair; head large, rounded in front, eyes large, thorax short, transverse, rather longer and much broader than the head, widest at the base, marked with remote punctures, sides slightly rounded and narrowly margined, hinder angles almost right angles; elytra very convex, much attenuated towards the apex, rather wider and much longer than the head and

thorax, widest near the shoulders, faintly asperate in transverse rows, sides slightly rounded, apex straight: abdomen very long, much attenuated towards the apex, 4-5 segments exposed, apex obtuse, rounded; legs and antennæ pale yellow, the latter very short, with the club dusky.

California (Crotch).

TRICHOPTERYGINA.

PTINELLA.

Motschulsky, Bull. Mosc. 18 p. 505, 1845.

BODY elongate, slender.

HEAD large, prominent, often long; eyes often wanting in ♂.

ANTENNÆ generally long and slender, each joint ornamented with long setæ, 11-jointed, 1-2 very large, 3-8 long and slender, 9-11 incrassate, forming an elegant moniliform club.

PRONOTUM small, transverse, generally more or less constricted towards the base.

SCUTELLUM triangular.

ELYTRA short, truncate.

ABDOMEN very long, with five or six segments exposed, apical segment often dentate.

MESOSTERNUM moderate, not carinated.

METASTERNUM large, extending to the sides of the body.

VENTER composed of six segments.

POSTERIOR COXÆ remote, narrowly laminated.

Synoptic Table of Species.

Elytra dilated towards the apex..... **pellucida.**

Elytra not dilated towards the apex.

Length more than 1 mm..... **Championana.**

Length less than 1 mm.

Thorax not constricted near the base. **Pini.**

Thorax constricted near the base.

Elytra shorter than the head and thorax, sculpture faint. **Quercus.**

Elytra longer than the head and thorax, sculpture deep..... **incerta.**

Pt. Championana n. sp.—L. c. 1.12 mm.—Elongate, oval; depressed, shining, translucent yellow, clothed with very short golden hair; head large, pointed in front; eyes small and prominent; thorax shorter, but rather broader than the head, widest at the middle, strongly and abruptly constricted at the base, ornamented with minute remote tubercles with the interstices smooth and shining, and generally with a broad irregular depression on the disk; sides margined much rounded anteriorly, and abruptly constricted near the base; basal margin nearly straight, with the angles acute, and very prominent; elytra short, much shorter, and not wider than the head and thorax, wider near the middle, moderately asperate in remote transverse rows, with the interstices smooth and shining, apex

rounded; abdomen long, with five segments exposed; sides deeply margined, apex obtuse; legs and antennæ moderate, yellow.

Differs from *Pt. testacea* in its short and abruptly constricted thorax, very short elytra, and shorter legs and antennæ.

Hab.—"El Reposo," Guatemala, at an altitude of 800 feet, by Mr. Champion.

Pt. pellucida n. sp.—L. c. .63 mm.—Rather broad and depressed; moderately shining, ♂ yellow. ♀ castaneous, thickly clothed with pale hairs; head large, rounded in front, ♀ eyes large and prominent, ♂ eyes wanting; thorax small, transverse, much shorter, and not wider than the head, widest near the middle, ornamented with large tubercles in transverse rows; sides strongly margined, rounded anteriorly, and contracted towards the base, hinder angles right angles; on the disk are two indistinct impressions; elytra short, not wider or longer than the head and thorax, widest at the apex, deeply asperate in straight transverse rows; sides margined, nearly straight, apex broad, and very much rounded; abdomen broad, five segments exposed, apical segments acuminate; legs and antennæ long and robust, yellow.

Differs from the other species in its elytra dilated at the apex, and broad abdomen.

Guatemala (Champion).

Pt. Pini LeConte Smiths. Misc. Coll. i. p. 62, 1866.—L. c. .63—.75 mm.—Elongate narrow, ♂ pale yellow, rather thickly clothed with golden hair; head rather long, rounded in front; eyes ♂ wanting; thorax small, shorter and scarcely broader than the head, rather remotely and faintly tuberculate; sides moderately rounded, contracted towards the base; hinder angles nearly right angles; elytra short and narrow, shorter and not wider than the head and thorax, remotely and faintly asperate; sides nearly parallel, apex slightly rounded; abdomen long, six segments exposed, apical segment acute; legs and antennæ long, robust, pale yellow.

Differs from *Pt. pellucida* in its narrow shape and long pointed abdomen; ♀ has not yet been found.

United States (Dr. LeConte).

Pt. Quercus LeConte Smiths. Misc. Coll. i. p. 63, 1866.—L. c. .50—.63 mm.—Moderately elongate, narrow, ♂ pale yellow, ♀ more or less castaneous, sparingly clothed with pale hair; head very large, much rounded in front; eyes ♀ rather large, ♂ wanting; thorax rather wider, but not longer than the head, widest before the middle, alutaceous, scarcely tuberculate; sides slightly margined, widest before the middle, and constricted towards the base, hinder angles acute; elytra short, shorter and rather narrower than the head and thorax, widest towards the apex, remotely and deeply asperate, apex broad, almost straight; abdomen rather long, and rather obtuse, five segments exposed; eyes and antennæ robust, pale yellow.

Differs from the others in its smaller size, large head, constricted thorax and shorter elytra. *P. nigrovittis* LeConte is the ♀ of this species.

United States (Dr. LeConte and Motschulsky).

Pt. incerta n. sp.—L. c. .87 mm.—Elongate, narrow, convex, shining, sparingly clothed with very short yellow hair; head rather long, obtuse in front; eyes placed far back, rather large and prominent; thorax small, rather wider, but not longer than the head, widest near the middle, strongly constricted near the base, coarsely tuberculate, with an oval impression on each side near the scutellum; sides margined, rounded in front, and constricted near the base; basal margin nearly straight, with the angles acute and prominent; elytra long and narrow, sub-parallel: longer, but scarcely broader than the head and thorax; convex, shining, closely and coarsely asperate; apex much rounded, concolorous, with the edge white; abdomen with four segments exposed with the apical and half of the penultimate segment yellow, apex acute; legs and antennæ long and yellow.

Differs from other species in its narrow sub-parallel form, strongly constricted thorax, dark castaneous color and deep sculpture.

Hab.—San Geronimo, Guatemala, at an altitude of 3000 feet, Mr. Champion.

Obs.—I feel doubtful whether this insect is a true *Ptinella*; it differs much from the more normal species in its convex and corneous integument, but as far as I have been able to discover it does not present any anatomical difference.

CHAMPIONELLA n. g.

ANTENNÆ 11-jointed, 1–2 large cylindrical, 2 rather larger than 1, 3–7 nearly equal, 8 longer, and somewhat incrassated, 9–11 incrassated, gradually increasing in length and breadth.

PALPI MAXILLARY rather large, 4-jointed, penultimate joint longer than the preceding, cyathiform, terminal joint acicular long and sinuated.

LABIAL 3-jointed, short and robust, 2 narrower than 1, with a long divergent setæ at the exterior apical angle, 3 ovate.

LINGUA broad, with the apex obtuse and dentate.

LABIUM moderate, with the apical margin concave, paraglossæ almost rudimentary.

MENTUM rather large, oblong, with the sides slightly concave, with two small setæ near each anterior angle.

MANDIBLES rather large and robust, with the apex acute, slightly hooked, minutely dentate on the back. *Lamella membranacea* small, nearly circular. *Stipes* large, produced into a long, very acute, curved process behind the mandible, and furnished with a small sinuated process near the base.

MAXILLA 3-lobed, *outer lobe* corneous, formed by a long, pointed, incurved process of the stipes; *middle lobe* coriaceous, short and broad, 2-jointed, furnished at the apex with a long brush of strong setæ; *inner lobe* corneous, large and robust, armed at the apex with three long and strong incurved teeth.

LABRUM large, semi-oval, constricted before the middle, with three setæ on each side below the middle, and a curved row of smaller setæ towards the apex.

HEAD moderate, prominent.

PRONOTUM rather small, not constricted.

ELYTRA very short, abruptly truncate; *epipleura* largely developed.

ABDOMEN robust, pointed at the apex, with four long segments fully exposed.

PROSTERNUM moderate, falcate; *episterna* distinct, very small; *epimera* rather large; *coxal cavities* contingent, enclosed behind.

MESOSTERNUM large, minutely carinate; *episterna* not reaching the shoulders; *epimera* very large and broad, reaching to the coxal cavities.

METASTERNUM large, extending to the sides; *episterna* and *epimera* covered by the *epipleura*, posterior extremity of the latter only visible.

VENTER composed of seven segments, 1 twice as long as 2, 2-7 equal, apex pointed.

LEGS rather long; femora, especially the posterior, robust; tibiæ slightly dentate on the inner edge, tarsi 3-jointed, basal joint much larger than the second, third long and slender, claws rather long and slender.

COXÆ ANTERIOR nearly circular, contingent.

INTERMEDIATE oval, separated by the carina.

POSTERIOR rather small, prominent, widely distant, not laminated.

C. nubigena n. sp.—L. c. .53—.75 mm.—Elongate, oval; very convex, shining, dark castaneous, sparingly clothed with silvery hair; head prominent, rather long, labrum and palpi yellow; eyes small, not prominent; thorax rather larger and wider than the head, widest near the middle; very shining, closely and finely tuberculate, or alutaceous; sides rounded, faintly margined, basal margin nearly straight, with the angles obtuse; elytra short, shorter, but rather wider than the head and thorax, widest behind the middle, rather deeply and remotely asperate, with the interstices strongly reticulate; sides rounded, apex very broad, nearly straight; abdomen conic, rather acute, with four segments fully exposed, pale towards the apex; legs rather long, bright yellow; antennæ moderate, dusky yellow.

Apart from its anatomical differences this insect may be known from any species of *Pinella* by its convex and corneous integument; and the abrupt truncation of the elytra.

This curious species was found by Mr. Champion on "Totonicapam" in Guatemala, at an altitude of 10,500 feet.

From *Pinella* this genus may be known by the very diverse form of the antennæ; hard, corneous and convex integument, abrupt and straight truncation of the elytra, and by the seven ventral segments of the abdomen.

PTERYCODES n. g.

ANTENNAE 11-jointed, 1-2 very large, 2 rather smaller than 1, constricted near the apex, 3-8 very long and slender, constricted near the base and apex, 9 faintly incrassate, 10 much longer and wider than 9, largely incrassate at the base, and very slender towards the apex, 11 much longer and wider than 10, obtusely conic, the three terminal joints ornamented with a score of rather short setæ.

PALPI, MAXILLARY rather small, 4-jointed, penultimate joint ovate, truncate, terminal long, acicular and sinuated, with a long seta on each side before the middle.

LABIAL very large and long, 3-jointed, basal joint very large, cylindric, 2 also cylindric, but more than twice smaller than the preceding, 3 much shorter and smaller than 2, acutely conic.

LINGUA long and narrow, concave in the middle, and produced on each side near the exterior angle into a short aciculated point, with a short divergent seta on each exterior angle.

LABIUM rather large with the anterior edge nearly straight; paraglossæ robust, erect, acute, with a long divergent seta on the outer side near the apex.

MENTUM oblong, with two strong setæ on the outer side of each anterior angle.

MANDIBLES moderate, rather hooked, moderately dentate at the back.

Lamella membranacea moderate, almost circular. *Stipes* rather small, produced into a long, robust, curved process behind the mandible.

MAXILLÆ 3-lobed, *outer* lobe corneous, formed by a long, robust, pointed process of the stipes; *middle* lobe coriaceous, 2-jointed, furnished at the apex with a brush of long, strong, setæ; *inner* lobe corneous, placed much below the middle lobe, rather small, armed at the apex with five or six sharp curved teeth.

LABRUM rather large, semi-oval, slightly constricted before the middle with three strong setæ on each side, and a curved row of smaller setæ beyond the middle of the disk.

HEAD large and prominent.

PRONOTUM large, slightly constricted near the base.

SCUTELLUM triangular.

ELYTRA rather long, truncate.

ABDOMEN moderately long, with three segments exposed.

PROSTERNUM moderate, falcate; *episterna* small, distinct; *epimera* rather large; coxal cavities broadly enclosed behind.

MESOSTERNUM rather large, slightly carinate, carina produced between the coxal cavities; *episterna* large, humeral; *epimera* very large and broad, reaching the coxal cavities.

METASTERNUM rather short, not extending to the sides; *episterna* large and broad, not reaching to the coxæ; *epimera* very large and broad, reaching to the venter; coxæ very widely separated.

VENTER composed of six segments, with the basal and apical segments longer than the rest.

LEGS long and robust, tarsi 3-jointed, with the basal joint twice as large as the second, terminal joint long and slender, claws long and slender; posterior tibiæ dentate on the inner edge with two strong spurs near the apex.

COXÆ ANTERIOR contingent.

INTERMEDIATE separated by the carina.

POSTERIOR large and very prominent, very widely separated, broadly laminated on the exterior margin, lamina triangular.

This genus seems intermediate between *Pteryx* and *Ptinella*; from the former it differs in having six ventral segments, and in the wide separation of the posterior coxæ; from the latter in the length of the elytra, and from both in the small size of the ninth joint of the antennæ, the long and peculiarly formed labial palpi, the diverse form of the maxillæ and small size of the maxillary palpi, the metasternum not reaching the sides of the body, and in the broadly laminated posterior coxæ.

P. Salvinii n. sp.—L. c. .87—1 mm.—Sub-ovate, very convex, shining, translucent castaneous, thickly clothed with very short golden hair; head large and broad, prominent, mouth yellow; eyes large, and rather prominent; thorax moderate, rather wider but not longer than the head, widest near the middle, constricted near the base, regularly marked with foveolate punctures, interstices alutaceous; sides anteriorly rounded and very broadly margined, near the base constricted, and not margined, basal margin slightly sinuated, with the angles acute and prominent; elytra ovate, translucent, antennæ longer, but scarcely wider than the head and thorax, widest near the middle, covered with deep, remote, asperated punctures in curved rows, the interstices finely alutaceous; sides rounded, slightly margined, apex broad and much rounded; abdomen convex, with three segments exposed, the two last segments yellow; eyes and antennæ long and slender, bright yellow.

Two specimens of this beautiful species were found by Mr. Champion on Cerro Tunil, in Guatemala, at an altitude of from 4000 to 5000 feet.

PTERYX.

Matthews, Zool., p. 6017, 1858.

ANTENNÆ 11-jointed, each joint furnished with a whorl of long setæ, three last joints very much incrassated, forming an elegant moniliform club.

HEAD large and prominent.

PRONOTUM moderate, generally sub-quadrate.

ELYTRA truncate.

ABDOMEN rather long, 4 or 5 segments exposed.

MESOSTERNUM shortly carinated.

METASTERNUM moderate, extending to the sides of the body.

VENTER 7 segments.

POSTERIOR COXÆ moderately distant, and moderately laminated, lamina rather acuminate.

Synoptic Table of Species.

Thorax with the sides widest at the base **brunnea**.

Thorax with the sides widest before the base.

Thorax with the sides slightly rounded **balteata**.

Thorax with the sides strongly rounded **Du Valii**.

P. brunnea LeConte, Smiths. Misc. Coll. I, p. 62, 1866.—L. c. .75—.87 mm.—Oblong, oval, moderately convex, shining, dusky, castaneous; sparingly clothed with golden hair; head large, rather long; eyes small, placed far back; thorax moderate, transverse, broader and rather longer than the head, widest at the base, deeply marked with large foveolate punctures; sides broadly margined and slightly rounded, hinder angles rather obtuse; elytra oblong, oval, longer and narrower than the head and thorax, widest before the middle, very deeply and irregularly asperate, apex moderately rounded; abdomen rather long, obtuse; legs and antennæ long and slender, bright yellow.

Differs from the other species in its larger size, and deeply punctured thorax, widest at the base.

United States (Dr. LeConte).

P. balteata LeConte, Smiths. Misc. Coll. I, p. 62, 1866.—L. c. .50—.63 mm.—Oval, convex, shining, bright yellow, sparingly clothed with short, pale hair; head large, elongate, rounded in front; eyes very small; thorax moderate, rather longer and wider than the head, widest at the middle, closely and faintly tuberculate; sides rounded and broadly margined, hinder angles obtuse; elytra short, quadrate, scarcely wider or longer than the head and thorax, remotely asperate; sides nearly straight, apex broad, scarcely rounded; abdomen rather long and slender, bright yellow.

Differs from others in its small size, short and broad form, short quadrate elytra, and general sculpture.

United States (Motschulsky).

P. Du Valii Matthews, Trich. Illust. p. 164, 1872.—L. c. .87 mm.—Oblong, oval, moderately convex, shining, dusky, castaneous, sparingly clothed with short golden hair; head large, rounded in front; eyes rather large and prominent; thorax moderate, transverse, rather longer than the head, widest at the middle, ornamented with small, remote tubercles; sides much rounded and broadly margined, hinder angles almost right angles; elytra oblong, longer but not wider than the

head and thorax, very deeply and remotely asperate; sides straight, apex moderately rounded; abdomen rather long, pale yellow; legs and antennæ moderate, pale yellow.

Differs from others in the rounded shape of the thorax, and in the general sculpture.

United States (Dr. LeConte).

PTINELLODES.

Matthews Trich. Illust. p. 150, 1872.

ANTENNÆ 11-jointed, long and very slender, each joint ornamented with a whorl of long setæ, the three last moderately incrassate, forming an elongate moniliform club.

HEAD large, rather prominent.

PRONOTUM moderate, dilated at the base ♀, near the middle ♂.

ELYTRA truncate.

ABDOMEN rather long, with two short spines at the apex.

MESOSTERNUM scarcely carinated.

METASTERNUM short, extending to the sides of the body.

VENTER 6 segments.

POSTERIOR COXÆ very remote, slightly laminated.

P. LeContei Matthews, Trich. Illust. p. 160, 1872.—L. c. 1 mm.—Oblong, elongate, moderately convex, translucent yellow, sparingly clothed with short golden hair; head large and prominent; eyes wanting ♂, or small and prominent ♀; thorax moderate, rather longer, and wider than the head, widest near the middle ♂, or at the base ♀, alutaceous ornamented with minute, remote, equidistant tubercles; sides broadly margined, much rounded in ♂, hinder angles acute and moderately produced; elytra oblong, longer and rather narrower than the head and thorax, remotely and faintly asperate; sides nearly straight, apex scarcely rounded; abdomen rather long, 4 segments exposed, apical segment long, with an acute tooth on each side at the apex; legs and antennæ very long and slender, pale yellow.

United States (Dr. LeConte).

LIMULODES.

Matthews Ann. Lyc. Nat. Hist. New York, 8, p. 409. 1867.

Body conic, widest in front.

ABDOMEN very short, robust, 9-jointed, 1 and 2 very large, 3–6 very small (the third joint appears to be an amalgamation of three joints), 7–9 very large and much incrassate, forming an elongate club.

HEAD small, deflexed, completely received in a cavity of the prothorax.

PRONOTUM very large and very convex, circularly rounded in front, hinder angles acute and slightly produced.

ELYTRA truncate, short and much attenuated towards the apex.

ABDOMEN short, part of three segments exposed, apex deeply bifid, covered with very long golden hair.

PROSTERNUM large, produced posteriorly into a very long and broad plate extending more than half over the metasternum, deeply bifid at its extremity.

MESOSTERNUM strongly carinated, carina produced posteriorly into a broad spoon-shaped process covering the posterior coxæ.

METASTERNUM very short, extending to the sides of the body.

VENTER 6 segments, apical segment large, deeply bifid, and longitudinally sculptured.

LEGS very short and compressed, tarsi very small, and the femora broadly laminated.

POSTERIOR COXÆ moderately distinct, very small and linear, furnished posteriorly with an immense quadrate lamina.

L. paradoxus Matthews Ann. Lyc. Nat. Hist. New York, 8, p. 409, 1867.—L. c. .87—1 mm.—Conic, widest in front, very convex, shining, rufo-testaceous, thickly covered with a sericeous silvery pubescence; head small, eyes wanting; thorax very large and very convex, widest at the base, alutaceous; sides circularly rounded, posterior very acute and slightly produced; elytra connate, attenuated, shorter and narrower than the head and thorax, widest at the shoulders, elegantly and reticulately asperated, apex broad, scarcely rounded; abdomen moderately exerted, three segments exposed, thickly covered with long golden hair extending beyond the apex of the abdomen, apical segment long, deeply bifid; legs and antennæ very short, rufo-testaceous.

United States. In ants' nests.

MYRMICOTRICHIS.

Motschulsky Bull. Mosc. 41, p. 181, 1868.

BODY sub-ovate.

ANTENNÆ 11-jointed, the three last joints moderately incrassate, forming a moniliform club.

HEAD rather deflexed.

PRONOTUM much dilated at the base, with the hinder angles exceedingly produced.

ELYTRA truncate, rather long.

ABDOMEN long and much exposed.

MESOSTERNUM large, much carinated.

METASTERNUM moderate, extending to the sides of the body.

VENTER 6 segments.

LEGS rather short, tibiæ compressed.

POSTERIOR COXÆ moderately distant, broadly laminated.

M. æquatorialis Motschulsky Bull. Mosc. 41, p. 182. 1868.—L. c. .75 mm.
—Sub-ovate, very connex, and very shining, translucent yellow, very sparingly clothed with short golden hair; head large and broad; eyes very small; thorax large, much wider and longer than the head, widest at the base, closely ornamented with minute tubercles in transverse wavy rows; sides rounded and broadly margined, basal margin strongly arcuate with the angles, very acute, and excessively produced, extending to one-quarter of the elytra; elytra rather long and narrower, much attenuated towards the apex, narrower and rather longer than the head and thorax, rather closely and deeply asperate in transverse oblique rows; sides rather contracted towards the middle, apex scarcely rounded; abdomen elongate, robust, bright yellow.

Central America (Motschulsky).

TRICHOPTERYX.

Kirby and Spence Int. to Ent. 3, p. 40, 1819.

BODY generally oblong, or ovate.

ANTENNÆ 11-jointed, the three last incrassate, forming a moniliform club.

HEAD large, rather deflexed.

PRONOTUM generally dilated towards the base, with the hinder angles often much produced.

ELYTRA truncate, generally short.

ABDOMEN moderate, 3 to 5 segments exposed, generally dentate at the apex.

MESOSTERNUM carinated, carina acute at both extremities.

METASTERNUM moderate, extending to the sides of the body.

VENTER 6 segments, apical segment often incised near the extremity.

LEGS moderate, anterior and intermediate tarsi often have basal joints dilated.

POSTERIOR COXÆ rather distant, with the exterior edge broadly laminate.

Synoptic Table of Species.

Thorax evidently wider, or much wider than the elytra.

Thorax smooth, nearly impunctate.

Elytra strongly attenuated..... **Schaumii.**

Elytra not attenuated..... **glabricollis.**

Thorax evidently tuberculate.

Head and thorax black, elytra castaneous.

Form elongate posteriorly, thorax much dilated.

Size large, abdomen black..... **Haldemanni.**

Form short and broad.

Elytra convex..... **Dohrnii.**

Elytra depressed..... **discolor.**

Form oblong, thorax widest near the middle..... **similior.**

- Head, thorax and elytra, castaneous.....**Crotchii.**
 Entirely black, or fuscous black.
 Form exceedingly convex.
 Size very large, no lateral setæ.....**Godmanni.**
 Size moderate, with erect lateral setæ.....**grossa.**
 Form moderately convex.
 Thorax widest before the middle.
 Elytra long and parallel.....**crassicollis.**
 Elytra short and rounded.....**abrupta.**
 Thorax widest at the base.
 Antennæ yellow.
 Elytra short and fuscous.
 Abdomen black.....**atomaria.**
 Abdomen pale.....**rufescens.**
 Elytra black, not short.
 Elytra attenuated.
 Thorax very broad.....**laticollis.**
 Thorax moderate.
 Antennæ dusky yellow.....**cognata.**
 Antennæ bright yellow.....**fascicularis.**
 Elytra not attenuated.
 Elytra with strong erect setæ.....**minor.**
 Elytra without lateral setæ.....**sitkaensis.**
 Antennæ black, or pitchy black.
 Hinder angles of thorax dilated laterally.....**Henrici.**
 Hinder angles of thorax moderate laterally.
 Antennæ short.....**Josephi.**
 Antennæ long.....**diffinis.**
 Thorax scarcely wider than the elytra, hinder angles of thorax acute, often produced.
 Entirely castaneous.
 Hinder angles of the thorax not produced.
 Form oblong.....**ambigua.**
 Form thorax and elytra dilated in middle.....**bidilatata.**
 Hinder angles of the thorax much produced.
 Thorax widest at the base.....**Californica.**
 Thorax widest before the base.....**castanea.**
 Head and thorax black, elytra rufous.
 Form broad, quadrate.....**xanthocera.**
 Form moderate, oblong.
 Abdomen castaneous.....**brevior.**
 Abdomen black.....**parallela.**
 Entirely black, or fuscous black.
 Antennæ black.
 Form long and parallel, size large.....**parallelipeda.**
 Form short, size moderate.
 Elytra widest at the apex.....**aspera.**
 Elytra, with the sides, nearly straight.
 Thorax widest at the base, deep black.....**vicina.**
 Thorax widest before the base, fuscous black.....**sericans.**
 Antennæ yellow.

- Thorax widest near the middle.....**Hornii.**
 Thorax widest at the base.....**nigrita.**
 Thorax not wider than the elytra, hinder angles of the thorax not acute.
morens.

Species added to the foregoing by Mr. Champion's more recent discoveries in Central America:

- T. Alliberti**, distinguished by its broad head and thorax, attenuated elytra, and erect setæ on the thorax and elytra.
T. lucida, distinguished by its shining, translucent surface and largely dilated thorax.
T. glauca, distinguished by its small size and dense glaucous pubescence.
T. angustipennis, distinguished by its broad thorax and narrow oblong elytra.
T. excelsa, distinguished from *T. abrupta* by its shining surface and remote sculpture.
T. grandicollis, distinguished by its usually æneous color and erect setæ on the thorax and elytra.
T. vitrea, distinguished from all by its translucent and very shining surface, short rounded form, and small size.
T. Aubæi, distinguished by its elongate shape and rufo-brunneous color.

T. Schaumii Matthews Ann. Mag. Nat. Hist. 17, p. 143, 1866.—L. c. 1 mm.—Elongate, very much attenuated posteriorly, very convex, and very shining, rufo-castaneous, very sparingly clothed with short griseous hair; head moderate rather long; eyes moderate slightly prominent; thorax rather short, and very broad, very convex, smooth and shining, rather longer, and much broader than the head, widest near the base; sides broadly margined, and very much rounded, basal margin arcuate, with the angles broad, acute and excessively produced, extending about one-quarter of the length of the elytra; elytra short, very convex, and very much attenuated, shorter and much narrower than the head and thorax, widest at the shoulders, translucent, faintly and remotely asperate; sides slightly rounded and margined, apex nearly straight, abdomen much attenuated and elongate, with five segments exposed; legs long, bright yellow, antennæ long and slender, bright yellow.

This remarkable species differs from all others in its broad head and thorax, exceedingly long hinder angles of the latter, small, narrow and translucent elytra, elongate and attenuated abdomen, and shining, castaneous color.

A single example found in Louisiana (Dr. Schaum).

T. Haldemanni (LeConte) Motschulsky Bull. Mosc. 41 p. 177, 1868.—L. c. 1—1.2 mm.—Rather elongate, very convex and shining; head and thorax black, rufo-castaneous, very sparingly clothed with short, pale hair; head very large and very broad; eyes small, not prominent; thorax large, wide and very convex, depressed at the base, much longer and broader than the head, widest before the base, ornamented with small, rather remote tubercles, regularly and elegantly arranged in nearly straight transverse rows; sides very much rounded and moderately margined, hinder angles broad, acute and much produced; elytra attenuated

posteriorly ♂, as long as, but narrower than, the head and thorax; rather deeply, closely and irregularly asperate; sides slightly rounded, apex nearly straight; abdomen long, rather attenuated towards the apex, black; legs and antennæ rather long, bright yellow.

Differs from other species in its large and elongate form, broad head and thorax, and peculiar sculpture.

United States.

T. Godmanni Matthews n. sp.—L. c. 1.87—2 mm.—Very broad and very convex, very shining, black, clothed with short silvery hair; head moderate; eyes rather small; thorax very large, and very convex, much dilated posteriorly, widest at the base, closely covered with minute tubercles in irregular rows; sides rounded and slightly margined, hinder angles pale, broad and much produced; elytra fuscous, rather short, nearly as long as, but rather narrower than, the head and thorax, much attenuated posteriorly, closely and finely asperate in nearly straight transverse rows; sides nearly straight, apex broad, slightly rounded, pale, with the edge white; abdomen much exerted, obtuse; legs robust, bright yellow, with the anterior tibiae and basal joints of the tarsi dilated, antennæ moderate, dusky yellow.

Differs from all others in its very large size, very broad and convex shape, and in the general sculpture.

Vera Paz (Champion).

T. grossa Motschulsky Bull. Mosc. 41 p. 170, 1868.—L. c. 1—1.12 mm.—Exceedingly broad and convex, shining, black, clothed with griseous hair; head large and broad; eyes moderate, thorax very large, very convex and shining, much dilated posteriorly, longer and much broader than the head, widest at the base, ornamented with minute and remote tubercles, the interstices shining; sides rounded and broadly margined with a strong erect black setæ on each side near the base, hinder angles wide and much produced, pale; elytra fuscous, short and much attenuated posteriorly, shorter and rather narrower than the head and thorax, widest at the shoulders; sides nearly straight, with a strong erect black setæ on each side near the shoulder, and another towards the apex, finely and closely asperate in transverse rows, apex broad, nearly straight, pale; abdomen moderate; legs robust, dusky yellow, antennæ long, slender, dusky testaceous.

Differs from others in its large size, short convex form, large shining thorax, long antennæ, and erect black setæ.

Central America (Motschulsky and Champion).

T. Alliberti Matthews Trich. Illust. p. 139.—L. c. 1.12 mm.—Broad, very convex, black, rather shining, thickly clothed with short gray hair; head very large and broad; eyes moderate; thorax very large and very broad, very convex, much dilated posteriorly, widest near the base, ornamented with rather large tubercles in close sinuated rows with the interstices reticulate, with a strong erect black setæ on each side near the middle; sides rounded and strongly margined, basal margin depressed, sinuated, and slightly depressed, with the angles much produced and acute; elytra moderate, much attenuated posteriorly, narrower and scarcely longer than the head and thorax, with a strong erect black setæ on each side near the shoulder, and another behind the middle, closely but rather lightly

asperate; sides nearly straight, suture rather elevated towards the apex; apex nearly straight, pale, with the edge white; abdomen black, not much exerted; legs and antennæ slender, bright yellow.

Differs from other species in its large size, very broad head and thorax, attenuated elytra, erect setæ and general sculpture.

Hab.—Central America, found by Mr. Champion near "Las Mercedes," at an elevation of 3000 feet.

T. lucida n. sp.—L. c. .87 mm.—Rather short and broad, much attenuated posteriorly, very convex and very shining, translucent castaneous, clothed with rather long golden hair; head rather large, produced in front; eyes large and very prominent; thorax large, much dilated posteriorly, longer and wider than the head, widest at the base, ornamented with minute remote tubercles, with the interstices smooth and very shining; sides strongly margined and slightly rounded, basal margin arcuate, with the angles acute and very much produced, pale; elytra short, narrower, and not longer than the head and thorax, widest at the shoulders, much attenuated posteriorly, faintly and irregularly asperate, apex broad and much rounded; abdomen very little exposed, testaceous; legs rather short, bright yellow; antennæ long and very slender, pale yellow.

This very pretty species may be known by its very shining and translucent surface, pale and slender antennæ, testaceous underside, and general sculpture.

Hab.—Central America, found by Mr. Champion on "Cerro Tunil," at an altitude of 4000 to 5000 feet.

T. glabricollis Matthews Ann. and Mag. Nat. Hist. 17 p. 143, 1866.—L. c. .87 mm.—Very short and broad, very convex shining, dark castaneous, sparingly clothed with very short pale hair; head very large and broad, smooth and shining; eyes small; thorax very large and broad, very smooth and shining, longer and wider than the head, widest before the base; sides much rounded and widely margined, basal margin reflexed, hinder angles broad and much produced, pale; elytra rufescent, very short, shorter and narrower than the head and thorax, widest behind the middle, faintly and remotely asperate; sides broadly margined and much rounded posteriorly, apex scarcely rounded, pale; abdomen moderate, castaneous; legs and antennæ rather short and slender, bright yellow.

Differs from all others in its very short and broad form, very convex, smooth and shining thorax, elytra widest behind the middle, and short slender legs and antennæ.

United States (Dr. Schaum).

T. Dohrnii Matthews Trich. Illust. p. 144, 1872.—L. c. .87 mm.—Rather short, convex; head and thorax black; elytra rufo-testaceous, clothed with sericeous golden pubescence; head rather prominent, shining; eyes large, rather prominent; thorax large, much dilated posteriorly, much longer and wider than the head, widest at the base, ornamented with small remote tubercles in transverse wavy rows, interstices very shining, depressed at the base; sides rather abruptly rounded near the base, hinder angles much produced, acute and broadly flavescent;

elytra flattened posteriorly, not longer and much narrower than the head and thorax, moderately asperate in rather distant rows; sides slightly sinuated, apex almost straight; abdomen moderate black; legs and antennæ bright yellow, the latter long and slender.

Differs from *T. cursitans* Niet. in its smaller size, thorax rather abruptly dilated near the base, and sinuated sides of the elytra.

United States (Dr. Schaum).

T. similior Matthews n. sp.—L. c. .75—.87 mm.—Rather short, slightly attenuated posteriorly, convex, rather shining; head and thorax black; elytra rufous, sparingly clothed with short pale hairs; head very large, much rounded in front; eyes large, not prominent; thorax moderate, longer and rather broader than the head, widest before the base, dilated posteriorly in the males, ornamented with moderate, rather remote tubercles, with the interstices strongly reticulated and shining; sides rounded and margined, basal margin sinuated, with the angles moderately produced and pale; elytra sub-quadrate, rather shorter and not wider than the head and thorax, moderately asperate in remote wavy rows, apex broad, nearly straight; abdomen much exposed, attenuated towards the apex, apex tridentate; legs and antennæ moderate; dusky yellow.

Differs from *T. discolor* in its smaller size, more convex form, less dilated and more faintly sculptured thorax, oblong and attenuated elytra. The female is smaller and more oblong in form than the male.

Hab.—Rio Nananja and other parts of Central America (Mr. Champion).

T. discolor Haldeman Journ. Acad. Nat. Sc. Philadelphia, p. 108, 1852.—L. c. .75—.87 mm.—Sub-ovate, rather convex, shining, black, with the elytra testaceous, sparingly clothed with fulvous hair; head large, rather prominent; eyes large; thorax moderate, much broader and longer than the head, widest near the base, ornamented with rather large tubercles in wavy rows, interstices shining, black, with all the margins yellow; sides moderately rounded, hinder angles pale and much produced; elytra testaceous, short, depressed, attenuated posteriorly in the ♂, rather shorter and narrower than the head and thorax; sides nearly straight, closely but irregularly asperate, apex broad, scarcely rounded; abdomen black, considerably exerted; legs and antennæ moderate, bright yellow.

Differs from other species in its depressed testaceous elytra and sculpture.

United States (Haldeman). Brazil (Dr. Schaum).

T. Crotchii Matthews Ent. Mon. Mag. 1 p. 248, 1865.—L. c. .75 mm.—Short, broad, convex, shining, castaneous brown, clothed with pale hairs; head large, shining; eyes moderate; thorax large, very convex, much broader and longer than the head, widest at the base ornamented with very minute tubercles closely placed in remote transverse rows; sides margined and much rounded, hinder angles much produced and pale; elytra rather rufescent, much attenuated posteriorly, shorter and narrower than the head and thorax, faintly and remotely asperate, apex nearly straight; abdomen rather long, black; legs and antennæ bright yellow, the club of the latter much incrassated.

Differs from other species in its short attenuated form, castaneous color, peculiar sculpture of the thorax, and largely incrassated club of the antennæ.

Central America (Motschulsky and Champion).

T. rufescens Matthews n. sp.—L. c. .87 mm.—Ovate, very convex, shining, head and thorax black, elytra rufous, clothed with short flavescent hair; head large; eyes large and prominent; thorax very large, dilated at the base, longer and much wider than the head, widest at the base, rather closely covered with distinct tubercles, interstices shining; sides rounded and strongly margined, hinder angles broad and much produced; elytra short, much attenuated posteriorly, rufous brown, not longer and rather narrower than the head and thorax, closely but rather faintly asperate; sides nearly straight, apex much rounded, pale, with the edge white; abdomen moderate, rufous brown; legs very robust, bright yellow, with the basal joints of all the tarsi dilated; antennæ rather slender, yellow.

Differs from others in its convex and attenuated form, rufous brown elytra and abdomen, bright yellow legs and antennæ.

Vera Paz (Champion).

T. atomaria Dr. Geer Mem. Hist. des Ins. 4 p. 218, 1774.—L. c. .75—.87 mm.—Short and broad, very convex, pitchy black, shining, densely clothed with rather long fulvous hair; head large and prominent; eyes moderate; thorax very large and very convex, longer and much wider than the head, widest at the base, ornamented with small remote tubercles, with the interstices very shining; sides margined and rounded, hinder angles very much produced, broadly flavescent; elytra short, fuscous, posteriorly attenuated in ♂, nearly quadrate in ♀, narrower, but rather longer than the head and thorax, deeply asperate in transverse rows, apex oblique, slightly rounded, apex broadly, and sometimes the sides, flavescent; abdomen rather long, obtuse; legs and antennæ bright yellow, femora rather dusky.

Differs from others in its short form, large thorax, widest at the base, and in sculpture.

United States.

T. glauca Matthews n. sp.—L. c. .75 mm.—Rather short, male much attenuated posteriorly; female oblong, convex, not shining, castaneous brown, thickly covered with short, sericeous, glaucous hair; head large and broad; eyes not prominent; thorax large, much dilated posteriorly in the male, much longer and wider than the head, widest at the base, thickly covered with small tubercles in close wavy rows, interstices smooth; sides moderately rounded, scarcely margined, basal margin sinuated, with the angles broad, very acute and much produced; elytra sub-quadrate, rather narrower, not longer than the head and thorax, widest at the shoulders, closely and deeply transversely asperate; sides nearly straight, apex rounded, broad and pale, with the edge white; abdomen considerably exserted, ferruginous, apex distinctly bidentate; legs robust, bright yellow; antennæ very slender, pale yellow.

Differs from other species in its rufo-glaucous color, dense sericeous pubescence, slender antennæ, and very close sculpture. The female is more oblong in form than the male.

Hab.—Central America, found near Bugaba, Panama, by Mr. Champion.

T. laticollis Mannerheim Bull. Mosc. 25 p. 283, 1852.—L. c. 1.12 mm.—Oblong, very convex, deep black, clothed with silvery hair; head large and broad, shining; eyes small, not prominent; thorax large, very convex, much wider and longer than the head, widest at the base, ornamented with small, distinct tubercles, regularly arranged; sides slightly rounded and margined, hinder angles broad, acute, produced and black; elytra slightly attenuated posteriorly; longer, but not wider than the head and thorax, faintly and remotely asperate in transverse rows; sides nearly straight, apex nearly straight; abdomen not much exerted; legs and antennæ long, yellow, the latter rather dusky, anterior tarsi, with the basal joint, slightly dilated.

Differs from others in its large size, long and attenuated elytra, deep black color, and sculpture.

California (Mäklin).

T. angustipennis Matthews n. sp.—L. c. 1 mm.—Sub-oblong, with the thorax very broad, very convex, shining, dull black, clothed with yellow hair; head large; eyes large, not prominent; thorax large, much dilated laterally, much longer and wider than the head, widest near the middle, ornamented with large tubercles in irregular rows, with the interstices smooth and shining; sides very much rounded, and rather broadly margined, basal margin much depressed, sinuated and reflexed; elytra short, much narrower and not longer than the head and thorax, widest near the middle, rufous brown, moderately asperate in transverse rows, interstices shining; sides rather contracted towards the apex; apex broad, moderately rounded, with the edge white; abdomen moderately exerted, obtuse, with the apex faintly tridentate; legs rather long, bright yellow; antennæ long and slender; yellow, with the club dusky.

Differs from other species in its laterally dilated thorax, and short and narrow elytra.

Hab.—Central America, found by Mr. Champion near San Geronimo and Capitello, Guatemala.

T. crassicollis Matthews Ann. and Mag. Nat. Hist. 17 p. 147, 1866.—L. c. 1.12 mm.—Oblong, convex, pitchy black, clothed with short griseous hair; head large and prominent; eyes moderate, rather prominent; thorax large, very convex, longer and much broader than the head, widest near the middle, ornamented with moderate tubercles in close wavy rows; sides very much rounded, posterior margin reflexed, hinder angles acute, not much produced; elytra fuscous black, oblong; longer, but narrower than the head and thorax, closely but faintly and irregularly asperate; sides nearly straight, apex broad, scarcely rounded, rather pale; abdomen rather long, obtuse; legs and antennæ long and slender, bright yellow.

Differs from other species in the rounded sides and great width of its thorax, oblong almost parallel elytra, long and slender legs and antennæ, and in general sculpture.

United States (Dr. Schaum).

T. Sitkaensis. Motschulsky Bull. Mosc. 18, p. 526, 1845.—L. c. .87—1 mm.—Rather short and broad, convex, pitchy black, thickly clothed with short fulvous hair; head large; eyes small, not prominent; thorax short, longer and wider than the head, widest at the base, ornamented with small tubercles irregularly distributed; sides scarcely rounded, hinder angles acute, but little produced, pale; elytra slightly attenuated towards the apex, longer but not broader than the head and thorax, moderately asperate in transverse wavy rows, rather depressed, apex much rounded, pale, with the edge white; abdomen short; legs moderate, bright yellow; antennæ rather long and slender, bright yellow.

Differs from *T. Henrici* in the form and sculpture of the thorax, depressed and more attenuated elytra, and bright yellow legs and antennæ.

Sitka (Mäklin).

T. Henrici Matthews Trich. Illust. p. 135, 1872.—L. c. .75—.87 mm.—Short, obtuse, convex, black, clothed with very short pale hair; head prominent, large and broad; eyes moderate; thorax rather short, longer and much broader than the head, widest near the base, ornamented with very small remote tubercles, much depressed at the base; sides abruptly rounded towards the base and margined, hinder angles broad, acute and produced; elytra short, quadrate, not longer or wider than the head and thorax, asperate in transverse straight rows; sides slightly rounded, apex broad, nearly straight and pale; abdomen short; legs and antennæ rather short, piceous.

Differs from other species in its short and broad form, externally dilated posterior angles of the thorax, general sculpture and piceous legs and antennæ.

Vancouver's Island (H. and J. Matthews).

T. abrupta Haldeman Journ. Acad. Nat. Sc. Philadelphia.—L. c. .87 mm.—Ovate, short and broad, very convex, black, thickly covered with rather long fulvous hair; head moderate, rather long; eyes rather large and prominent; thorax moderate, very convex, longer and much wider than the head, widest before the base, ornamented with rather large distinct tubercles irregularly arranged; sides rounded and margined, hinder angles acute, moderately produced, elytra short not longer, and rather narrower than the head and thorax, closely, and rather deeply asperate in curved transverse rows; sides slightly rounded, rather contracted at the apex, apex broad, very little rounded, pale with the edge white; abdomen rather long, obtuse, with the apex pale; legs rather short, bright yellow; antennæ dusky yellow.

Differs from other species in its small size, short, broad, and very convex form, prominent head, broad thorax and narrow elytra.

United States.

T. excelsa Matthews n. sp.—L. c. .87 mm.—Short, somewhat rounded, not attenuated posteriorly, very convex, rather shining, thinly clothed with brown hair; head and thorax black, elytra rufescent; head large; eyes prominent; thorax very convex, depressed at the base, rather longer and much broader than the head, widest before the base, ornamented with minute tubercles in remote, wavy, transverse rows, with the interstices reticulated and shining; sides margined and much rounded, basal margin almost straight, with the angles broad,

much produced and broadly yellow; elytra short, shorter but not wider than the head and thorax, widest at the middle, very convex, moderately asperate in remote, transverse, wavy rows; sides and apex much rounded, the latter pale; abdomen rather long, obtuse; legs and antennæ dusky yellow.

Differs from *T. abrupta* in its shining surface, remote sculpture, much longer and paler hinder angles of the thorax, and longer and more slender antennæ—from others in its short, convex form, rounded sides and depressed base of the thorax, and rounded elytra.

Hab.—Central America, found by Mr. Champion on "Totonicapam," Guatemala, at an altitude of 10,500 feet.

T. minor Matthews n. sp.—L. c. .87 mm.—Oblong, oval, convex, rather shining, black, densely clothed with yellow hair; head moderate; eyes not prominent; thorax rather long, longer and rather wider than the head, closely covered with large tubercles in irregular rows, the interstices shining and faintly reticulate; sides margined and moderately rounded, with an erect black seta on each side before the middle, basal margin reflexed, and much sinuated, with the angles pale and much produced; elytra fuscous, sub-quadrate, not longer or wider than the head and thorax, deeply and closely asperate in transverse rows; sides nearly straight, with an erect black seta near the shoulder, and another beyond the middle on each side, apex broad, much rounded, pale, with the edge white; abdomen rather long, fuscous, with the apex bidentate; legs long and robust, bright yellow; antenna long and slender, dark yellow.

Differs from *T. grandicollis* in its much smaller size, oblong form, and deeper sculpture.

Hab.—Central America, found by Mr. Champion in abundance near San Geronimo, Guatemala.

T. grandicollis Mann (Trich. Illust. p. 135).—L. c. 1—.12 mm.—Rather broad, very convex, brassy-black, thickly clothed with fulvous hairs; head large and broad; thorax large, widest before the base, ornamented with moderate tubercles irregularly placed, with the interstices reticulate; sides margined, and very much rounded with an erect black seta on each side behind the middle, hind angles acute, much produced; elytra moderate, scarcely longer, but rather narrower than the head and thorax, slightly rounded, furnished with an erect black seta on each side near the shoulder, and also behind the middle, apex slightly contracted and pale; antennæ long, piceous, or black; legs yellow.

A single specimen of this species was found by Mr. Champion on "Totonicapam," at an altitude of 10,500 feet. It seems strange that this very common European insect should occur in such a locality, and at so high an altitude, in Central America; but, after the most careful examination, I can discover no point of form or sculpture in which this specimen differs from the European examples of the female; in this sex the sides of the thorax are always less dilated than in the male.

T. cognata Matthews Cist. Ent. 2, p. 176, 1877.—L. c. 1.12 mm.—Oval, rather narrow, convex, black, clothed with very short pale hair; head rather small; eyes

moderate; thorax moderate, longer and wider than the head, widest at the base, ornamented with small tubercles, closely but irregularly arranged, hinder angles much produced, acute and pale at the point; elytra narrow, slightly attenuated posteriorly, not longer or wider than the head and thorax, very closely asperate in transverse rows; sides slightly rounded, apex much rounded, pale, with the edge white; abdomen rather long, obtuse; legs robust, with the femora dusky, and the tibiæ bright yellow; antennæ slender dusky yellow.

Differs from *T. fascicularis* in its narrower form, smaller head and thorax, and dusky antennæ.

British Columbia (Crotch).

T. fascicularis Herbst Nat. Syst. 5, p. 8, 1793.—L. c. 1—1.25 mm.—Sub-oval, convex, black, not shining, sparingly clothed with short pale hairs; head moderate; eyes rather prominent; thorax moderate, longer and wider than the head, dilated posteriorly, widest at the base, ornamented with small, distinct tubercles in transverse wavy rows; sides slightly rounded, hinder angles produced and acute; elytra moderate, attenuated towards the apex, longer but rather narrower than the head and thorax, asperate in close, transverse rows; sides slightly rounded, apex rounded and pale; abdomen considerably exerted, obtuse; legs and antennæ moderate, bright yellow.

Differs from others in its larger size, sub-oval form, smaller head, rather long and attenuated elytra, and in sculpture.

United States.

T. Josephi Matthews Trich. Illust. p. 132, 1872.—L. c. .75 mm.—Oblong, rather narrow, moderately convex, black, thickly covered with short pale hair; head rather long; eyes rather prominent; thorax rather large, longer and broader than the head, widest at the base, very thickly covered with rather large tubercles; sides slightly rounded, posterior margin reflexed and yellow, hinder angles acute and produced; elytra rather long, oblong, with the sides nearly parallel, not wider, but nearly half as long again as the head and thorax, moderately asperate in close, but distinct, transverse rows, apex strongly rounded and flavescent; abdomen moderately exerted, obtuse; legs rather long, robust, bright yellow; antennæ slender, rather short, pitchy black.

Differs from *T. atrata*, Motsch., in its smaller size, parallel and narrow elytra, and in sculpture.

Vancouver's Island (H. and J. Matthews).

T. diffinis Matthews Trich. Illust. p. 132, 1872.—L. c. .75—.87 mm.—Oblong, rather broad, convex, black, rather thickly clothed with flavescent hair; head large, rather short and broad; eyes small, not prominent; thorax rather large, dilated posteriorly, widest before the base, longer and broader than the head, ornamented with small tubercles irregularly arranged; sides margined and rounded, hinder angles considerably produced, acute and pale; elytra rather short, quadrate, rather narrower and scarcely longer than the head and thorax, moderately asperate in transverse rows; sides margined and straight, apex broad, slightly rounded; pale, with the edge white; abdomen moderately exerted, obtuse; legs robust, bright yellow; antennæ moderate, piceous.

Differs from other species in its small size, oblong form, thorax widest before the base, piceous antennæ, and in sculpture.

United States.

T. brevior Matthews n. sp.—L. c. .75 mm.—Oblong, moderately convex, fuscous black, with the elytra paler, clothed with short griseous hair; head large, rather produced in front; eyes large, rather prominent; thorax moderate, slightly dilated posteriorly, rather longer and wider than the head, widest near the base, covered with small, remote and indistinct tubercles; sides slightly rounded and rather broadly margined, posterior angles acute and much produced; elytra quadrate, fuscous, not longer or wider than the head and thorax, faintly asperate in transverse rows; sides almost straight, apex broad and rounded, with the edge white; abdomen castaneous, rather long and obtuse; legs and antennæ bright yellow.

Differs from *T. diffinis* in its smaller size, shorter elytra, shorter and paler antennæ, and fuscous color.

Guatemala (Champion).

T. parallelopipeda Matthews Cist. Ent. 2, p. 175, 1877.—L. c. 1 mm.—Oblong, convex, rather shining, black, clothed with rather long, yellow hair; head moderate; eyes not prominent; thorax moderate, very convex, longer and wider than the head, widest at the base, closely and irregularly covered with moderate tubercles; sides slightly rounded, hinder angles much produced and pale; elytra oblong; longer, but not wider than the head and thorax, closely asperate in transverse rows; sides nearly straight, apex broad and rounded, narrowly pale; abdomen moderately exerted; legs moderate, bright yellow; antennæ rather short, pitchy black.

Differs from *T. Hornii* in its oblong, parallel form, the thorax widest at the base, and short pitchy black antennæ.

British Columbia (Crotch).

T. xanthocera Matthews Cist. Ent. 2, p. 174, 1877.—L. c. 1 mm.—Oblong, rather broad, convex, pitchy black, with rufescent elytra, clothed with pale hair; head large; eyes not prominent; thorax large, convex, dilated posteriorly, longer and much wider than the head, widest at the base, ornamented with minute tubercles irregularly arranged; sides rounded and margined with yellow, hinder angles much elongate, flavescent; elytra short, quadrate, not longer or wider than the head and thorax, rather deeply asperate in transverse rows; sides nearly straight, suture rufescent, apex broad, slightly rounded and pale; abdomen moderately exerted, obtuse, rufopiceous; legs robust, bright yellow; antennæ long, very bright yellow.

Differs from *T. Hornii* in its large size, broad, quadrate form, rufopiceous elytra, and very bright yellow antennæ.

British Columbia (Crotch).

T. Hornii Matthews Trich. Illust. p. 176, 1872.—L. c. .87—1 mm.—Oblong, very convex, rather shining, black, rather thickly clothed with long brown hair; head large; eyes prominent; thorax moderate, longer and wider than the head, widest near the middle, closely and irregularly covered with small, distinct tuber-

cles; sides rounded, hinder angles very acute and much produced; elytra rather short, fuscous black, not longer or wider than the head and thorax, widest near the middle, rather faintly asperate in straight transverse rows; sides slightly rounded, apex broad and much rounded; abdomen considerably exerted, obtuse; legs moderate, bright yellow, anterior tibiae and tarsi dilated; antennae very long and slender, bright yellow.

Differs from *T. abrupta* in its larger size, yellow and much longer antennae.

United States (Arizona).

T. California Matthews Cist. Ent. 2. p. 174, 1877.—L. c. .87—1 mm.—Oblong, rather convex, shining, castaneous, clothed with short golden hair: head large and broad; eyes moderate; thorax large, convex, rather longer, and much wider than the head, widest at the base, ornamented with minute tubercles in irregular transverse rows; sides paler, rounded and margined, hinder angles very acute and considerably produced, broadly flavescent; elytra oblong, rufocastaneous, with the suture paler, rather narrower, and rather longer than the head and thorax; sides nearly parallel, closely asperate in transverse rows, apex broad, slightly rounded; abdomen moderately exerted, obtuse; legs and antennae long and slender; bright yellow.

Differs from others in its rather long and narrow elytra, rufocastaneous color and short golden pubescence.

California (Crotch).

T. sericans Heer Fn. Col. Helvet. 1. p. 375, 1841.—L. c. .75—.87 mm.—Rather short and broad, depressed, obscure, black, not shining, more or less thickly covered with long brown hair: head large and broad; eyes moderate; thorax moderate, slightly dilated at the base, longer and broader than the head, widest before the base, covered with large tubercles in close rows, interstices rugose; sides slightly rounded, hinder angles acute, slightly produced; elytra rather short, quadrate, depressed, not attenuated, as wide and scarcely longer than the head and thorax, closely and deeply asperate in transverse rows; sides nearly straight, apex broad and rounded; abdomen obtuse, moderately exerted; legs moderate, dusky yellow; antennae black, or pitchy black.

Differs from others in its short, broad and depressed form, long brown pubescence, black antennae and rugose sculpture.

United States.

T. castanea Matthews Cist. Ent. 2. p. 173, 1877.—L. c. .87 mm.—Oblong, convex, rather shining, rufocastaneous, thickly clothed with golden hairs: head moderate, produced in front; eyes moderate, not prominent; thorax moderate, longer and wider than the head, widest before the base, ornamented with small tubercles in transverse rows; sides rounded and margined, hinder angles acute, very much produced and broadly yellow; elytra oblong, translucent, longer but not wider than the head and thorax; sides almost parallel and margined, rather deeply asperate in transverse rows, apex broad and rounded; abdomen considerably exerted, obtuse; legs and antennae robust, bright yellow.

Differs from others in its translucent, castaneous color, parallel elytra, and robust legs and antennæ.

British Columbia (Crotch).

T. bidilatata Matthews n. sp.—L. c. .63—.75 mm.—Oblong, convex, not shining, dusky castaneous, thickly covered with short griseous hair; head large and broad; eyes large, rather prominent; thorax transverse, not longer but rather wider than the head, widest near the middle, ornamented with rather large tubercles in transverse wavy rows; sides rounded and margined, hinder angles acute, but very little produced; elytra oblong, oval, not wider or longer than the head and thorax, widest near the middle, very closely asperate in transverse rows, apex broad, nearly straight, with the edge white; abdomen long, obtuse, with the edges of the segments pale; legs long, bright yellow; antennæ dusky yellow.

Differs from other species in its *twice* dilated form.

Guatemala and Vera Paz (Champion).

T. vicina Matthews Cist. Ent. 2, p. 172, 1877.—L. c. .75 mm.—Oblong, slightly convex, deep black and shining, clothed with yellow hair; head very large and broad; eyes scarcely prominent; thorax large, longer and wider than the head, widest at the base, ornamented with small tubercles in remote wavy rows; sides slightly rounded and broadly margined, the margin pale, hinder angles broad, produced and pale; elytra short, quadrate, rather narrower and not longer than the head and thorax, moderately asperate in remote transverse wavy rows; sides straight, apex scarcely rounded and narrowly pale; abdomen not much exserted; legs bright yellow; antennæ black.

Differs from *T. picicornis*, Mann, in its larger size, fainter and different sculpture of the thorax, and longer antennæ.

British Columbia (Crotch).

T. parallela Motschulsky Bull. Mosc. 41, p. 176, 1868.—L. c. .75—.87 mm.—Oval, elongate, very convex, fuscous black, rather shining, thickly clothed with long, fulvous hair; head large and broad; eyes large, not prominent; thorax rather large, sub-quadrate, longer and wider than the head, widest at the base, ornamented with small, remote tubercles; sides slightly rounded, hinder angles much produced and very acute; elytra rufofuscous, longer but not wider than the head and thorax, widest at the shoulders, moderately asperate, apex rounded and broadly pale; abdomen rather long, semi-oval; legs and antennæ long, bright yellow.

Differs from others in its oval, elongate form, rufofuscous elytra, and bright yellow antennæ. Allied to *T. Montandonii*, Allib.

United States (District of Columbia, Ulke).

T. nigrita Matthews n. sp.—L. c. .63 mm.—Oblong, moderately convex, not shining, fuscous black, clothed with brown hair; head moderate; eyes rather prominent; thorax moderate, rather transverse, wider but scarcely longer than the head, slightly dilated and widest at the base, ornamented with small tubercles in transverse sinuated rows; sides moderately rounded and rather broadly margined, posterior angles broad and slightly produced; elytra oblong, fuscous; rather

longer but not wider than the head and thorax, deeply and closely asperate in transverse rows: sides straight, apex broad, much rounded and paler: abdomen much exerted, piceous: legs and antennæ slender, yellow: the latter dusky.

Differs from others in its small size, oblong form, and piceous abdomen; allied to *T. obscaena*, Woll., from which it differs in its smaller size, more depressed form, and more rugose sculpture.

Guatemala (Champion).

T. aspera Haldeman Journ. Acad. Nat. Sc., Phila. p. 109, 1849.—L. c. .63—.75 mm.—Sub-oblong, broad, rather depressed, dull black, clothed with griseous hair: head very large; eyes large, rather prominent; thorax short, rather longer but not wider than the head, widest at the base, ornamented with large tubercles in transverse rows; sides slightly rounded, posterior angles acute, scarcely produced: elytra rather longer but not wider than the head and thorax, widest at the apex, deeply asperate, apex slightly rounded, with the edge white; legs moderate, yellow; antennæ piceous.

Differs from others in its small size, form broader posteriorly, rugose sculpture, and piceous antennæ.

United States.

T. ambigua Matthews Ent. Mo. Mag. 1, p. 177, 1865.—L. c. .63—.75 mm.—Oblong, rather convex, castaneous, sparingly clothed with pale hair: head large and broad; eyes small, not prominent; thorax moderate, longer and wider than the head, widest before the base, ornamented with rather large, distinct tubercles, posterior angles acute, slightly produced: elytra oblong, longer but not wider than the head and thorax, rather deeply asperate in transverse rows: sides nearly straight, apex very broad and rounded, rather paler; legs long, robust, bright yellow: antennæ slender, dusky yellow.

Differs from other species in its oblong form, rather long elytra, robust legs and slender antennæ, castaneous color, and general sculpture.

United States (Dr. Schaum).

T. vitrea Matthews n. sp.—L. c. .50—.63 mm.—Oval, very short and broad, very convex and very shining, translucent, castaneous, thinly clothed with short golden hair: head large and broad; eyes very large and prominent; thorax short, transverse, not longer but rather wider than the head, widest before the base, ornamented with very minute, indistinct, remote tubercles, interstices smooth and very shining; sides rounded, basal margin nearly straight, with the angles very little produced: elytra sub-quadrata, as long and as wide as the head and thorax, lightly but closely asperate: sides rounded and contracted towards the apex, apex slightly rounded: legs and antennæ rather large, bright yellow.

Differs from all other species in its very short, convex form and shining, translucent surface.

Hab.—Central America, found in profusion near Bugaba, Panama, by Mr. Champion.

T. mœrens Matthews Cist. Ent. 11, p. 298, 1874.—L. c. .63 mm.—Short broad, very convex, very shining, black, sparingly clothed with pale hair: head large and short: eyes small not prominent: thorax moderate, transverse, rather

longer but not wider than the head, widest near the middle, smooth and very shining; sides moderately rounded and broadly margined, posterior angles right angles; elytra very short and very convex, not longer or wider than the head and thorax, widest at the middle, very faintly asperate in transverse rows, apex very broad and scarcely rounded, with the edges yellow; abdomen not much exerted; legs moderate, bright yellow, with the tibiae and basal joints of the anterior tarsi dilated; antennae very long and slender, bright yellow.

Differs from other species in its small size, very convex form, smooth surface and shining black color.

United States (Crotch).

T. Aubæi Matthews Trich. Illust. p. 117.—L. c. .75—.87 mm.—Elongate oval, moderately convex, brown, rather thickly covered with pale hair; head large, elongate, much rounded in front; eyes rather prominent; thorax wider but not longer than the head, widest behind the middle, ornamented with very small tubercles in close wavy rows, interstices closely reticulate; sides much rounded, basal margin straight, with the angles rather obtuse; elytra rather long, rather wider and more than half as long again as the head and thorax, widest towards the apex, deeply and irregularly asperate, suture slightly elevated posteriorly, apex broad, slightly rounded; legs and antennae long and slender, bright yellow.

Differs from other species in its long and narrow shape, pale brown color, rounded thorax, and long legs and antennae.

Of this distinct species two specimens were taken by Germaine many years ago in Chili; recently a single example was found near Washington by Mr. Ulke, and several others by Mr. Champion on "Cerro Tunil," in Guatemala, at an altitude of 4500 feet.

SMICRUS.

Matthews Trich. Illust. p. 110. 1872.

BODY oblong, elongate.

ANTENNÆ very long and slender, setose, 11-jointed, 3 last joints incrassated, forming an elongate, moniliform club.

HEAD large and broad.

PRONOTUM short, sub-quadrate, slightly constricted towards the base.

ELYTRA rather long, abruptly truncate.

ABDOMEN broad, obtuse.

MESOSTERNUM moderate, carinated.

METASTERNUM rather long, extending to the sides of the body.

VENTER 6 segments, apical segment either entire or deeply sculptured.

LEGS long and robust.

POSTERIOR COXÆ moderately distant, widely laminated.

S. filicornis Fairm. et Laboulb. Faun. Fr. 1, p. 338, 1854.—L. c. .75—1.12 mm.—Oblong, sub-parallel, convex, black, clothed with a short, yellow pubescence; head large, produced in front; eyes large, rather prominent; thorax short, quad-

rate, rather longer and wider than the head, widest in front, closely covered with minute tubercles; sides rounded anteriorly, constricted towards the base, margined with yellow, posterior angles acute, rather prominent; elytra long, as long and nearly as wide as the head and thorax, very closely, minutely, but deeply asperate; sides nearly parallel, apex broad, almost straight, pale; abdomen long, obtuse; 5 segments exposed; antennæ very long, pale yellow; legs long, robust, bright yellow.

United States and South America (Dr. Schaum).

NEPHANES.

Thomson Skand. Col. 1, p. 62. 1859.

ANTENNÆ 11-jointed, last 3 much incrassated, forming a moniliform club.

HEAD large, porrected.

PRONOTUM small, more or less quadrate.

ELYTRA short, abruptly truncate.

ABDOMEN elongate, obtuse.

MESOSTERNUM moderate, not carinated.

METASTERNUM rather short, extending to the sides of the body.

VENTER 6 segments.

LEGS rather short.

POSTERIOR COXÆ remote, large, and narrowly laminated.

Synoptic Table of Species.

Body rather elongate, pubescence dense **pubescens.**

Body short, pubescence sparing.

Elytra short, size small **flaviventris.**

Elytra longer, size larger **læviusculus.**

N. pubescens n. s.—L. c. .50—.63 mm.—Oblong, elongate, rather depressed, castaneous, thickly clothed with griseous hair; head large, produced in front; eyes moderate, rather prominent; thorax short, transverse, not longer and scarcely wider than the head, widest behind the middle, ornamented with small tubercles irregularly arranged; sides slightly rounded, hinder angles rather obtuse; elytra short, not longer or wider than the head and thorax, widest near the apex, closely but faintly asperate in transverse rows; sides nearly straight, apex broad, almost straight; abdomen pale, long and obtuse; legs and antennæ long, bright yellow.

Guatemala (Champion).

I feel some hesitation in placing this species in the genus *Nephanes*. I was at first inclined to think from its elongate shape and dense pubescence that it belonged to *Ptiliodes*, but the form of the antennæ is entirely similar to *Nephanes*, and differs much from the former genus.

N. læviusculus Matthews Ann. and Mag. Nat. Hist. 17, p. 148, 1866.—L. c. —.63 mm.—Short, broad, convex, shining, pitchy castaneous, clothed with pale hair; head very large and broad; eyes large and prominent; thorax rather long,

rather longer and wider than the head, widest behind the middle, ornamented with large, circular, umbilicated fovea on the disc; sides slightly rounded, posterior angles obtuse; elytra rather short, as long as the head and thorax, but rather narrower at the shoulders, widest near the apex, closely asperate; sides nearly straight, apex very broad, almost straight; abdomen rather long, obtuse, pale ferruginous: antennæ long and slender, dusky yellow; legs long, robust, bright yellow.

Differs from *N. flaviventris* in its larger size, longer thorax, and remarkable sculpture.

United States.

N. flaviventris Motsch. Bull. Mosc. 41, p. 183, 1868.—L. c. .50 mm.—Oval, very short, convex, shining, brassy castaneous, with the shoulders of the elytra rufous, clothed with short pale hair; head moderate; eyes not prominent; thorax rather longer and wider than the head, widest at the middle, closely covered with small tubercles, posterior angles right angles; elytra very short, quadrate, as wide as, but shorter than the head and thorax, shoulders rufous; sides slightly rounded, rather contracted towards the apex, deeply asperate in remote transverse rows, apex slightly rounded; abdomen much exerted, pale castaneous; legs and antennæ yellow; latter rather dusky.

Differs from *N. leviusculus* in its smaller size, shorter elytra, and general sculpture.

Central America (Motschulsky, Champion).

PTILIINA.

PTILIUM.

Erichson Ins. Deutsch. 3, p. 26, 1845.

BODY generally elongate.

ANTENNÆ 11-jointed. 9 scarcely incrassate, 10, 11 much incrassated, moniliform.

HEAD prominent.

PRONOTUM short, either sub-quadrate, or more or less contracted towards the base.

ELYTRA entire.

ABDOMEN with the pygidium exposed.

MESOSTERNUM short, broadly carinated.

METASTERNUM large, quadrate, extending to the sides of the body.

VENTER 7 segments, 6, 7 sometimes sculptured.

LEGS short, especially the posterior pair.

POSTERIOR COXÆ moderately distant, more or less broadly laminated.

Synopsis Table of Species.

Pronotum contracted at the base.

Antennæ robust.....**tropicum.**

Antennæ slender.....**planum.**

Pronotum not contracted at the base.

Body short and broad.

Size moderate, color pitchy black.....**Collani.**

Size exceedingly minute, color pale.....**Hornianum.**

Body elongate.

Color ferruginous, or testaceous.

Antennæ very long and slender.....**Columbianum.**

Color black, or piceous.

Pronotum widest at the base.....**obscurum.**

Pronotum widest near the middle.....**Sharpi.**

P. Collani (Mäklin) Mannerheim Bull. Mosc. 26, p. 95, 1853.—L. c. .63 mm.

—Oblong, moderately convex, pitchy black, sparingly clothed with griseous hair; head large and broad; eyes large, prominent; thorax transverse, quadrate, scarcely longer or broader than the head, widest near the middle, closely tuberculate; sides rounded, posterior angles obtuse; elytra scarcely wider, but half as long again as the head and thorax, widest near the middle, closely and deeply asperate; sides slightly rounded, apex broad and rounded; legs and antennæ rather long, yellow; the latter rather dusky.

Differs from other species in its oblong form, broad head and thorax, and pitchy black color.

United States.

P. Hornianum n. sp.—L. c. .37 mm.—Oblongum, convexum, sat nitidum, castaneum pilis griseis vestitum; capite magno lato, oculis modicis; pronoto parvo transverso, capite breviori vix latiori, nitido tuberculis exiguis confertim oblecto, lateribus leviter rotundatis, leviter marginatis, margine basali leviter reflexâ angulis fere rectis; elytris oblongis, capite atque pronoto parum longioribus vix latioribus, ad media latissimis, profunde et reticulatim asperatis, lateribus minime rotundatis, apice lato rotundato; pedibus late, antennis, obscure, flavis.

HEAD large and broad, produced in front, shining, closely covered with minute tubercles; eyes moderate, rather prominent; antennæ long, dark yellow.

THORAX small, transverse, shorter and scarcely wider than the head, rather shining, closely covered with minute tubercles, widest near the middle; sides slightly rounded and faintly margined, basal margin straight and faintly reflexed, with the angles nearly right angles.

SCUTELLUM small, triangular, closely asperate.

ELYTRA oblong, convex, rather longer, but scarcely wider than the head and thorax, widest at the middle, deeply and reticulately asperate; sides very little rounded, apex very broad and much rounded.

ABDOMEN with the pygidium pale.

LEGS moderate, bright yellow.

UNDER PARTS pale castaneous, with the mouth, hinder part of the metasternum, and terminal segments of the venter flavescent.

Differs from *P. rugulosum* in its exceedingly minute size, fainter sculpture, shining surface, and bright yellow legs.

Hab.—Texas, near Columbus.

Obs.—Two fine and perfect specimens of this species, the most minute of the whole family, except *Nanosella fungi*, were collected by E. A. Schwarz.

P. tropicum Matthews n. sp.—L. c. .50—.63 mm.—Rather long, moderately convex and shining, rufo-testaceous, clothed with very short flavescent hair: head large, rounded in front: eyes large and rather prominent; thorax small, not wider or longer than the head, widest before the middle, rather coarsely and closely tuberculate, sometimes with a faint depression on the disc; sides much rounded in front and strongly contracted towards the base, slightly margined, basal margin nearly straight with the angles moderate; elytra much longer and slightly wider than the head and thorax, widest near the apex, very finely and closely asperate; sides faintly rounded, apex very broad, slightly rounded; abdomen with the pygidium only exposed; legs and antennæ short, robust, bright yellow.

Differs from *P. planum* in its smaller size, shorter form, short and very robust antennæ, and in sculpture.

Hab.—Central America, found in some numbers near Bugaba, Panama, by Mr. Champion.

P. planum Matthews n. sp.—L. c. .63 mm.—Elongate, almost linear, moderately convex, ferruginous, densely clothed with yellow pubescence: head large, produced in front; eyes large and very prominent; thorax small, transverse, narrower and not longer than the head, widest before the middle, much contracted towards the base, closely and finely tuberculate, hinder angles almost right angles; elytra long and narrow, scarcely wider but more than half as long again as the head and thorax, closely but finely asperate, apex broad and rounded; legs yellow, long and slender; antennæ rather short, bright yellow.

Differs from other species in its long and almost linear form. *P. planum* is allied to the European *P. foveolatum*, from which it may be known by the smooth unsculptured disc of the thorax.

Guatemala (Champion).

P. obscurum Matthews Cist. Ent. 2, p. 171, 1877.—L. c. .75 mm.—Oval, convex, piceous, rather thickly clothed with hair: head large, obtuse; eyes moderate, not prominent; thorax moderate, longer and wider than the head, widest at the base, ornamented with large tubercles in transverse sinuated rows; interstices very shining; sides slightly rounded, posterior angles obtuse; elytra rather short, not longer, and scarcely wider than the head and thorax, widest at the apex, deeply asperate in transverse rows, apex very much rounded and broadly pale; legs and antennæ moderate yellow.

Differs from the two preceding species in its shorter and broader form, larger head and thorax, piceous color and sculpture.

British Columbia (Crotch).

P. humile Matthews Cist. Ent. 2, p. 170, 1877.—L. c. .63—.75 mm.—Elongate, moderately convex, ferruginous, rather thickly clothed with yellow hair:

head rather large, produced in front; eyes large and prominent; thorax small and short, shorter and scarcely wider than the head, widest near the middle, closely covered with rather large tubercles; sides rounded, posterior angles obtuse; elytra elongate, oval, scarcely wider but more than twice as long as the head and thorax, widest near the middle, moderately asperate in distant transverse rows, apex slightly rounded; legs and antennæ short, robust, bright yellow.

Differs from *P. Columbianum* in its much smaller size, short and robust legs and antennæ, and in the sculpture of the thorax.

California (Crotch).

P. Columbianum Matthews Cist. Ent. 2, p. 169, 1877.—L. c. .87 mm.—Elongate, oval, convex, ferruginous or castaneous, rather thickly clothed with yellow hair; head large; eyes large and prominent; thorax rather small, rather wider and shorter than the head, widest at the base, ornamented with distinct and rather large tubercles, the interstices shining; sides margined and much rounded, posterior angles rounded; elytra long, elongate, oval, rather wider and almost twice as long as the head and thorax, widest behind the middle, rather deeply asperate in distinct transverse rows, apex broad and slightly rounded; legs and antennæ long, bright yellow.

Differs from other species in its large size, elongate form, pale color, and very long antennæ.

British Columbia and California (Crotch).

P. Sharpi Matthews Trich. Illust. p. 101, 1872.—L. c. .87 mm.—Elongate, convex, pitchy black, clothed with short golden hairs; head rather small; eyes large and very prominent; thorax small, scarcely longer or wider than the head, widest before the middle, deeply and very closely tuberculate; sides much rounded, posterior angles obtuse; elytra large, ovate, broader and almost twice as long as the head and thorax, widest near the middle, moderately asperate in transverse rows, apex obtuse; legs and antennæ dusky yellow; the latter rather long.

Differs from other species in its large size and pitchy black color.

Vancouver's Island (H. and J. Matthews).

MILLIDIUM.

Motschulsky Bull. Mosc. 41, p. 176, 1868.

ANTENNÆ 11-jointed, 3-8 rather stout, 9-11 much incrassated, forming a moniliform club.

HEAD porrected.

PRONOTUM small, strongly constricted at the base.

ELYTRA entire.

ABDOMEN with the pygidium beyond the elytra.

MESOSTERNUM broadly carinated, with a very deep oval impression near the collum.

METASTERNUM narrow, sub-quadrate, widely distant from the sides of the body, episterna and epimera very broad.

VENTER 6 segments.

LEGS anterior and intermediate long, posterior very broad.

POSTERIOR COXÆ remote, very broadly laminated.

M. triramosum Motschulsky Bull. Mosc. 41, p. 189, 1868.—L. c. .50—.63 mm.—Elongate, oval, convex, very shining and smooth, rufo-piceous; head moderate; eyes large and prominent; thorax moderate, not longer and scarcely wider than the head, widest behind the middle, very much constricted towards the base, with five very deep sulci, of which the middle reaches from the base nearly to the anterior margin, the intermediate parallel and rather shorter, the exterior very short and divergent, the posterior angles acute and prominent; elytra long and narrow, longer but scarcely wider than the head and thorax, widest before the middle, remotely and very indistinctly punctate-striate, apex broad, rounded and paler; legs and antennæ pale yellow.

Differs from *M. trisulcatum* in its smaller size, rufo-piceous color, and parallel sulci of the thorax.

Central America (Motschulsky).

ACTIDIUM.

Matthews Ent. M. Mag. 5, p. 12, 1868.

ANTENNÆ 11-jointed, 9th scarcely, 10th and 11th very much incrassated.

HEAD porrected.

PRONOTUM small, base lying upon the shoulders of the elytra.

ELYTRA entire, long.

MESOSTERNUM small, widely carinated.

METASTERNUM long, quadrate, reaching to the sides of the body.

VENTER with 7 segments.

LEGS robust, generally short and much dilated, tarsi very short.

POSTERIOR COXÆ slightly distant, very slightly laminated.

Synoptic Table of Species.

Body smooth and very shining.

Thorax closely tuberculate, or alutaceous.

Elytra inflated..... **Crotchianum.**

Thorax smooth, elytra moderately convex..... **politum.**

Body pubescent and linear..... **Fowlerianum.**

A. Fowlerianum Matthews n. sp.—L. c. .38—.50 mm.—Elongate, linear, very narrow, convex, obscure, castaneous, densely clothed with silvery pubescence; head large, obtuse, closely tuberculate; eyes small, rather prominent; thorax small, transverse, neither longer or wider than the head, very closely tuberculate; sides rounded and abruptly contracted at the base, basal margin rounded; elytra long, twice as long, but scarcely wider than the head and thorax, widest before the middle, and attenuated towards the apex, closely asperate, apex rounded; legs bright yellow: antennæ robust, dusky yellow.

Differs from the other species in its minute size, elongate and attenuated form, pubescent surface, and close sculpture.

Guatemala (Champion).

A. politum Matthews Cist. Ent. 2, p. 168, 1877.—L. c. .50 mm.—Oval, convex, black, very shining, very sparingly clothed with very short hairs; head rather large; eyes rather small; thorax small and short, rather wider but not longer than the head, widest at the base: sides slightly rounded, basal margin rounded; elytra oval, rather longer and wider than the head and thorax, widest before the middle, very shining, very faintly asperate in transverse distinct sinuated rows, apex much rounded, paler; legs and antennæ rather long, pitchy black.

Differs from *A. Crotchianum* in its minute size, very shining, smooth and almost impunctate surface.

California (Crotch).

A. Crotchianum Matthews Cist. Ent. 2, p. 168, 1877.—L. c. .63 mm.—Oval, very convex, black, clothed with very short silvery hairs; head large; eyes moderate, rather prominent; thorax short, transverse, not longer, but rather wider than the head, closely and rather deeply punctured, or tuberculate, with a large transverse depression near the base; sides rounded, basal margin nearly straight, lying on the elytra; elytra ovate, exceedingly convex, wider and more than half as long again as the head and thorax, widest near the middle, closely asperate in transverse rows, apex attenuate and rounded, rather pale; legs and antennæ rather long and slender, pitchy black.

Differs from *A. politum* in its much larger size, inflated form of the elytra, and in sculpture.

British Columbia (Crotch).

PTENIDIUM.

Erichson Nat. Ins. Deutsch. 3, p. 35, 1845.

ANTENNÆ 11-jointed, last 3 incrassated, club moniliform.

HEAD porrected.

PRONOTUM rather small.

ELYTRA entire.

MESOSTERNUM short, faintly carinated.

METASTERNUM large, quadrate, extending to the sides of the body.

VENTER with 7 segments.

LEGS rather long, tarsi very slender.

POSTERIOR COXÆ remote, slightly laminated.

Synoptic Table of Species.

Pronotum almost glabrous, with four foveæ near the base.

Antennæ pitchy black.....**pullum.**

Antennæ flavescent.

Color of body black, or pitchy black.

Pronotum large, dilated in front.....	Mannerheimii.
Pronotum small, with the base of the thorax and shoulders of the elytra strangled.....	strangulatum.
Color of body rufo-piceous, or rufo-castaneous.	
Body turgidly convex.....	obesum.
Body moderately convex.	
Whole surface impunctate.....	impunctatum.
Head, thorax and scutellum foveolate.....	foveatum.
Pronotum alone foveolate.....	ignobile.
Color of body pale castaneous.....	foveicolle.
Pronotum without four distinct foveæ at the base.....	evanescens.

Species added to the foregoing by more recent discoveries :

Pt. nitens, distinguished by its shining impunctate surface and absence of the basal foveæ of the thorax, and from *P. impunctatum*, by its larger size and broad base of the thorax.

Pt. speculifer, distinguished from *Pt. obesum*, by its larger size, longer antennæ, and peculiar arrangement of the thoracic foveæ.

Pt. Ulkei, distinguished from all by the deep foveolate punctuation of the whole body.

P. strangulatum Matthews n. sp. — L. c. .75—.87 mm.—Elongate, strangled at the shoulders, very convex, smooth and shining black; head large, produced in front; eyes large and prominent; thorax small, transverse, rather wider but not longer than the head, widest before the middle, very strongly contracted at the base, smooth and shining, with four small, very indistinct foveæ near the base, and two others near each basal angle; sides broadly margined and much rounded, basal angles obtuse; elytra ovate, very convex, much wider, and almost twice as long as the head and thorax, widest before the middle, strongly attenuated at the apex and the shoulders, very shining black with the shoulders and apex rufous, with a row of punctures on each side of the anterior half of the suture terminating in a short convergent line; legs slender, bright yellow; antennæ yellow, with the club dusky.

Differs from all other species in its strangled form.

Guatemala (Champion).

P. foveicolle LeConte Smith. Misc. Coll. p. 63.—L. c. .75 mm.—Ovate, short, broad, very convex and shining, bright castaneous, sparingly covered with silvery hairs; head large and broad, rounded in front; eyes moderate, not prominent; thorax moderate, wider but scarcely longer than the head, widest before the middle, with two small foveæ near the anterior margin, and four very large, deep, circular, equidistant foveæ near the base, and a deep longitudinal impression on each side near the margin; sides widely margined, rounded anteriorly and contracted towards the base, with a single erect curved seta on each side behind the middle, hinder angles almost right angles; elytra broad, short, ovate, rather longer and wider than the head and thorax, widest before the middle, finely and very remotely punctured; sides much rounded and broadly margined, apex obtuse; legs and antennæ long, bright yellow, with the club of the latter dusky.

Differs from other species in its small size, short, convex form, castaneous color, the peculiar sculpture and shape of the thorax.

United States.

P. Mannerheimii Matthews Trich. Illust. p. 83, 1872.—L. c. .75—.87 mm.—Elongate, attenuated posteriorly, black, and very shining; head rather small; eyes large and prominent; thorax large almost quadrate, dilated anteriorly, longer and wider than the head, very smooth and shining, minutely and very remotely punctured with two small foveæ near the anterior margin, and four large, deep, equidistant foveæ near the base; sides scarcely rounded, but widely margined, hinder angles obtuse; elytra long, narrow and much attenuated towards the apex, not wider but more than half as long again as the head and thorax, widest before the middle, remotely but distinctly punctate-striate; sides margined and slightly rounded, apex acute, narrowly pale; legs and antennæ long, robust, bright yellow, tibiæ dilated at the apex.

Differs from other species in its narrow, attenuated form, large quadrate thorax and narrow elytra.

United States (Dr. LeConte).

P. ignobile Matthews n. sp.—L. c. .63 mm.—Oval, rather elongate, moderately convex, pitchy black, smooth and very shining; head large, rather elongate; eyes large and prominent; thorax moderate, rather wider, but scarcely longer than the head, smooth and very shining, with large and deep foveæ near the base; sides margined and rounded, widest at the middle, hinder angles obtuse; elytra oval, rather longer but not wider than the head and thorax, impunctate and shining, widest before the middle, attenuated posteriorly, apex pale; legs and antennæ rather long, bright yellow.

Differs from other species in its minute size, form and peculiar sculpture.

Guatemala (Champion).

P. nitens Matthews n. sp.—L. c. 1 mm.—Elongate, oblong, very convex and shining, glabrous, deep black; head large and prominent; eyes large, rather prominent; thorax moderate, wider and rather longer than the head, widest at the base, very convex and shining, marked with a few indistinct punctures, but without the usual basal foveæ; sides moderately rounded and faintly margined, basal margin slightly rounded, with the angles obtuse; elytra ovate, longer but not wider than the head and thorax, widest at the middle, very convex and shining, marked with a few scattered punctures; sides faintly margined, apex obtuse, fuscous; legs and antennæ moderate, bright yellow.

Differs from *Pt. Bruchii* in its smaller size and the absence of the basal foveæ of the thorax; from others in its shining, glabrous and almost impunctate surface.

Hab.—Central America; one specimen found by Mr. E. Janson near Chontales, Nicaragua.

P. foveatum Matthews n. sp.—L. c. .63—.75 mm.—Obtusely ovate, very convex and very shining, pitchy black; head large and broad with three large punctures in a line on each side near the eye; eyes large and rather prominent; thorax moderate, rather longer and wider than the head, with four deep, equidistant foveæ near the base, and two smaller foveæ near the anterior margin; sides rounded and margined, hinder angles obtuse; scutellum large and very deeply punctured; elytra rather short, slightly longer and wider than the head and

thorax, widest before the middle, very smooth and shining, with a single stria of remote punctures on each side of the suture, apex slightly attenuated; legs and antennæ rather long, robust, bright yellow.

Differs from other species in its foveolate head, thorax and scutellum, and almost impunctate elytra.

Guatemala (Champion).

P. pullum (Mäklin) Mannerheim Bull. Mosc. 25, p. 283, 1845.—L. c. 1 mm.—Ovate, convex, very shining, black very sparingly clothed with silvery hairs; head moderate, much rounded in front; eyes moderate, not prominent; thorax large, longer and wider than the head, widest behind the middle, remotely marked with large shallow punctures on the disk, and four small foveæ near the base; sides margined and much rounded, hinder angles rounded; elytra ovate, half as long again as the head and thorax, but scarcely wider, widest before the middle, much attenuated posteriorly, rather deeply and thickly punctured, apex paler and slightly rounded; legs and antennæ long, pitchy black.

Differs from other species in its large thorax, attenuated elytra, pitchy black legs and antennæ, and general sculpture.

California (Mäklin).

P. evanescens, *Sil. evanescens*. Marsh. Col. Brit. p. 126, 1802. *P. apicale* Erich. 1845, *terminale*, Haldeman, 1852.—L. c. 1—1½ mm.—Ovate, rather broad, very convex and shining, black, or piceous, with the apex of the elytra broadly rufo-testaceous, sparingly clothed with long silver hairs; head moderate; eyes rather large and prominent; thorax short, widest behind the middle, rather deeply but remotely punctured, with a deep transverse impression on each side at the base near the hinder angles; sides rounded, posterior angles obtuse; elytra ovate, widest before the middle, rather deeply but remotely punctate-striate; apex obtuse, more or less widely rufo-testaceous; legs and antennæ rather long, bright yellow, club of the latter dusky.

This widely diffused species may be more easily recognized by the widely pale apex of the elytra, the absence of distinct foveæ at the base of the thorax, and by the transverse impressions near its posterior angles. The differences between this species and its nearest allies, *P. Wankwiczii* and *P. atomaroides*, are described in the "Trichopterygia Illustrata," but need not be repeated here, since neither of the two last-named species have as yet been found in America.

P. impunctatum Matthews n. sp.—L. c. .75—.87 mm.—Elongate, oblong, very convex and very shining, piceous; head large and broad; eyes large; thorax rather large, transverse, wider but not longer than the head, very convex, impunctate, smooth and very shining; sides rounded, posterior angles obtuse; elytra ovate, obtuse; scarcely longer, and rather narrower than the head and thorax, almost impunctate, convex and very shining; sides margined, widest at the middle, apex obtuse, widely rufescent; legs and antennæ moderate, bright yellow.

Differs from other species in its broad head and thorax, narrow elytra, impunctate surface, and absence of the usual foveæ at the base of the thorax.

Guatemala, not uncommon (Champion).

P. obesum Matthews n. sp.—L. c. .87 mm.—Short and broad, exceedingly convex, smooth and very shining; head short and broad; eyes large, scarcely prominent; thorax moderate, transverse, rather longer and much wider than the head, very convex, smooth and shining, with four small equidistant punctures near the base, and two near the anterior margin; sides much rounded, widest at the middle, posterior angles obtuse; elytra short, ovate, very smooth and shining, rather longer but scarcely wider than the head and thorax, widest before the middle, apex very obtuse; legs moderate, yellow; antennæ short, dusky yellow.

Differs from other species in its exceedingly convex and short form. almost impunctate surface and short antennæ.

Guatemala (Champion).

P. speculifer n. sp.—L. c. 1 mm.—Ovale, validissime convexum, glaberrimum nitidissimum, piceum aut rufo-piceum elytris rufescentibus pilorum expers; capite sat magna lato; pronoto modico punctis perexiguus densis notato, foveis duabus parvis antice et duabus etiam parvis postice impresso, ad medium latiori lateribus valde rotundatis leviter marginatis; elytris modicis, capite atque pronoto parum longioribus vis latioribus, ante media latioribus, punctis perexiguus densis, notatis, lateribus leviter marginatis, apice obtuso; pedibus atque antennis sat gracilibus læte flavis.

HEAD rather large and broad, very smooth and shining, with a small fovea on each side near the eye, eyes large and prominent; antennæ rather slender, bright yellow, palpi bright yellow.

THORAX moderate, rather longer and broader than the head, very convex, smooth and shining, thickly covered with exceedingly minute punctures, with two small foveæ near the middle anteriorly and two smaller foveæ posteriorly near the base, widest at the middle; sides much rounded and slightly margined, basal margin nearly straight, with the angles rather obtuse.

SCUTELLUM large and broad, triangular, smooth and shining.

ELYTRA moderate, sometimes rufescent, rather larger but scarcely wider than the head and thorax, widest before the middle, exceedingly convex and shining, thickly covered with very minute punctures; sides slightly margined, apex obtuse, paler.

ABDOMEN with the pygidium pale.

LEGS rather slender, bright yellow, anterior tibiæ dilated towards the apex.

UNDER PARTS piceous, with the mouth yellow.

Differs from *Pt. obesum* in its larger size, longer antennæ, and peculiar arrangement of the foveæ at the base of the thorax.

Hab.—United States, found by E. A. Schwarz near Cambridge, Mass.

P. Ulkei n. sp.—L. c. .75 mm.—Oblongum convexum nitidissimum, punctis, foveolatis profundis notatum, castaneum pilis validis flavis sparse vestitum. capite modico sat elongato, oculis magnis prominulis; pronoto modico, capite parum latiori haud longiori pone medium latiori, punctis remotis profundis foveolatis per totum notatum, lateribus postice contractis, margine basali fere rectâ angulis sat obtusis; elytris ovalibus, capite atque pronoto sat longioribus et latioribus, ante media latioribus, apice obtuso dilutiori; pedibus atque antennis læte flavis.

HEAD moderate, rather elongate, very shining, marked throughout with deep, remote punctures: eyes large, rather prominent: antennæ long and slender, bright yellow.

THORAX moderate, rather broader, but not longer than the head, widest behind the middle, rather contracted towards the base, very convex and shining, marked throughout with deep, remote foveæ; sides slightly margined, basal margin nearly straight, with the angles rather obtuse.

SCUTELLUM very large, triangular, marked with deep, remote foveæ.

ELYTRA oval, widest before the middle, rather longer and wider than the head and thorax, convex and shining, marked throughout with deep, distant, irregular foveolate punctures; sides slightly margined, apex obtuse, paler.

LEGS moderate, dark yellow, with the femora dusky.

UNDER PARTS wholly castaneous.

Differs from *Pt. Lawsoni* in its smaller size, less convex form, deeper and more distant punctures.

Hab.—North America, found by Mr. Ulke in District of Columbia.

Obs.—This species belongs to the foveolate section of the genus, represented in Europe by *Pt. punctatum*, and in Australia by *Pt. Lawsoni*.

MOTSCHULSKIUM.

Matthews Trich. Illust. p. 72, 1872.

BODY elongate, oval.

HEAD rather large, sessile.

ANTENNÆ 11-jointed, 9th joint scarcely incrassated, 10th rather larger, 11th much larger than the 10th.

PRONOTUM quadrate, sides sinuated.

ELYTRA entire, rather long, epipleura very broad.

MESOSTERNUM short, carinated for its whole length.

METASTERNUM sub-quadrate, not reaching the sides of the body.

VENTER with six segments.

LEGS moderate, tibiæ dilated, tarsi short, robust, with the basal joints elongate and incrassate.

POSTERIOR COXÆ contingent, narrowly laminated.

M. sinuatocolle Matthews Trich. Illust. p. 74, 1872.—L. c. $1\frac{1}{2}$ mm.—Elongate, ovate, convex, fuscous black, covered with short silvery pubescence, coarsely punctate; head rather small; eyes moderate; thorax large, sub-quadrate, slightly constricted near the base, deeply punctured, longer and wider than the head, widest before the middle; sides sinuated, posterior angles obtuse; elytra ovate, rather wider and half as long again as the head and thorax, widest before the middle, deeply punctured, with the interstices rugose, apex broad, rounded; legs and antennæ rufous yellow.

United States. I found a mutilated specimen of this remarkable species in the collection of Dr. LeConte, several others were subsequently taken by Mr. Crotch in California.

MICRIDIMUM.

Motschulsky Bull. Mosc. 41, p. 188, 1869.

HEAD elongate, obtuse; eyes placed far back.

ANTENNÆ 11-jointed, 3 apical much incrassated, forming a moniliform club.

PRONOTUM sub-quadrate.

ELYTRA entire.

MESOSTERNUM broadly carinate.

METASTERNUM long and narrow, not reaching the sides of the body.

LEGS rather long, tibiæ slightly dilated.

POSTERIOR COXÆ largely laminated.

M. lineatum Motschulsky Bull. Mosc. 41, p. 189, 1869.—L. c. .37—.50 mm. —Oval, rather short, very convex and very shining, bright yellow, clothed with short golden pubescence; head elongate; eyes small, prominent; thorax rather longer and rather wider than the head, slightly constricted towards the base, rather thickly marked with foveolate punctures, posterior angles nearly right angles; elytra rather short, obtusely ovate, transparent, showing the wings, scarcely longer, but rather wider than the head and thorax, widest before the middle, rather deeply asperate, apex broad and rounded; antennæ moderate, robust, bright yellow; legs long and slender, bright yellow, anterior tibiæ and basal joints of the tarsi dilated.

Central America in ant nests (Motschulsky).

NANOSELLA.

Motschulsky Bull. Mosc. 41, p. 172, 1868.

BODY elongate, linear.

HEAD large, sessile.

ANTENNÆ short, 11-jointed, 2 basal joints very large, 3 apical joints very much incrassated, forming an almost solid club.

PRONOTUM short, widest at the base.

ELYTRA entire, very long, rounded at the apex.

ABDOMEN with the pygidium exposed.

MESOSTERNUM small, widely carinated.

METASTERNUM large, produced between the posterior coxæ into a sharp point.

LEGS rather short.

POSTERIOR COXÆ very broadly laminated.

N. fungi Motschulsky Bull. Mosc. 41, p. 187, 1868.—L. c. .26 mm.—Linear, elongate, moderately convex, rufo-testaceous, clothed with a very short yellow pubescence; head large; eyes large, not prominent; thorax scarcely longer or wider than the head, with the basal angles nearly right angles; elytra long, linear, not wider, but nearly twice as long as the head and thorax, faintly asperate, apex broad, much rounded; legs and antennæ yellow.

United States (Motschulsky).

THROSCIDIUM.

Matthews Trich. Illust. p. 64, 1872.

HEAD sessile, antennæ 11-jointed, 2 basal joints large, 2d longer than the 1st, 3–8 slender and elongate, last 3 very much incrassated, forming a moniliform club.

THORAX moderate, dilated at the base, posterior angles generally produced.

ELYTRA entire, generally obtuse at the apex.

ABDOMEN with the pygidium only exposed.

PROSTERNUM very short, with the coxal cavities open.

MESOSTERNUM rather short, very strongly carinated, coxal cavities separated by the carina.

METASTERNUM long, produced between the posterior coxæ into a small acute point.

POSTERIOR COXÆ extending to the sides of the body, and very broadly laminated.

VENTRAL SEGMENTS seven.

T. invisibile *Trichopteryx invisibilis*, Nietner, Ann. and Mag. Nat. Hist. New Series xix, p. 378, 1856. *Anatrichis clongatula*, Motsch. Bull. Mosc. 41, p. 180, 1868.—L. c. .50 mm.—Elongate, oval, convex, rather shining, livid testaceous, densely covered with silvery pubescence; head large, sessile; eyes small, rather prominent; thorax short, dilated at the base, closely covered with minute tubercles, posterior angles nearly right angles; elytra long, not wider, but half as long again as the head and thorax, elegantly and reticulately asperated, apex broad and rounded; legs and antennæ very pale yellow.

Central America (Motschulsky), Guatemala (Champion).

NOSSIDIUM.

Erichson Ins. Deutsch. 3, p. 17, 1845.

BODY oval.

ANTENNÆ 11-jointed, 1–2 very large, 3–8 slender, 9–11 much incrassate, forming a moniliform club.

HEAD sessile, deflexed.

PRONOTUM large, dilated towards the base.

ELYTRA entire.

ABDOMEN entirely covered by the elytra.

MESOSTERNUM short, carinated, carina very short.

METASTERNUM rather short, not extending to the sides of the body.

VENTER 7 segments.

LEGS moderate.

POSTERIOR COXÆ almost contingent, rather narrowly laminated.

N. Americanum Motschulsky Bull. Mosc. 41, pl. 2, p. 191.—L. c. 1 mm.—Oblong, oval, very convex and shining, sparingly clothed with rather long yellow hairs; head and thorax pitchy black; elytra bright rufous; head large; eyes prominent; thorax rather short, moderately dilated at the base, very shining, faintly and remotely punctured; sides rounded and margined, margins yellow, posterior angles nearly right angles; elytra rather long, oval, more than half as long again, but not wider than the head and thorax, rather deeply punctured in transverse sinuated rows, apex broad, much rounded; antennæ rather short; legs and antennæ bright yellow.

United States (Motschulsky).

N. posthumum Matthews Cist. Ent. xi, p. 298, 1871.—L. c. .75 mm.—Oval, very convex, shining, testaceous, clothed with short yellow pubescence; head and thorax very shining, remotely punctured; thorax widest at the base, with the sides moderately rounded and widely margined, basal angles rather acute; elytra widest at the shoulders, rather longer, but not wider than the head and thorax, deeply asperate in transverse sinuated rows, apex obtuse; legs and antennæ yellow.

Differs from *N. Americanum* in its minute size and narrow form, and also in sculpture.

United States (Crotch), one specimen.

List of North American Trichopterygidæ.

HYDROSCAPHINA.

Hydroscapha Lec.

natans Lec.

TRICHOPTERYGINA.

Ptinella Motsch.

Championana Matth.*

pellucida Matth.*

Pini Lec.

Quercus Lec.

incerta Matth.*

Championella Matth.

nubigena Matth.*

Pteryoodes Matth.

Salvinii Matth.*

Pteryx Matth.

Du Valii Matth.

balteata Lec.

brunnea Lec.

Ptinellodes Matth.

LeContei Matth.

Limulodes Matth.

paradoxus Matth.

Myrmicotrichis Motsch.

æquatorialis Motsch.*

Trichopteryx Kirby.

Schaumii Matth.
 Haldemanni Lec.
 Godmanni Matth.*
 grossa Motsch.*
 Alliberti Matth.*
 lucida Matth.*
 glabricollis Matth.
 Dohrnii Matth.
 similior Matth.*
 discolor Hald.
 Crotchii Matth.*
 rufescens Matth.*
 atomaria De Geer.
 glauca Matth.*
 laticollis Man.
 angustipennis Matth.*
 crassicollis Matth.
 sitkaensis Motsch.
 Henrici Matth.
 abrupta Hald.
 excelsa Matth.*
 minor Matth.*
 grandicollis Man.*
 cognata Matth.
 fascicularis Herbst.
 Josephi Matth.
 diffinis Matth.
 brevior Matth.*
 parallelopipeda Matth.
 xanthocera Matth.
 Hornii Matth.
 Californica Matth.
 sericans Heer.
 castanea Matth.
 bidilatata Matth.*
 vicina Matth.
 parallela Motsch.
 nigrita Matth.*
 aspera Hald.
 ambigua Matth.
 vitrea Matth.*
 mœrens Matth.
 Aubæi Matth.

Smicrus Matth.

filiicornis Fairm.

Nephanes Thoms.

pubescens Matth.*
 læviusculus Matth.
 flaviventris Motsch.*

PTILIINA.**Ptilium** Erichs.

Collani Mäk.
 Hornianum Matth.
 tropicum Matth.*
 planum Matth.*
 obscurum Matth.
 humile Matth.
 Columbianum Matth.
 Sharpi Matth.

Millidium Motsch.

triramosum Motsch.*

Actidium Matth.

Fowlerianum Matth.*
 politum Matth.
 Crotchianum Matth.

Ptenidium Erichs.

strangulatum Matth.*
 foveicolle Lec.
 Mannerheimii Matth.
 ignobile Matth.*
 nitens Matth.*
 foveatum Matth.*
 pullum Mann.
 evanescens Marsh.
 impunctatum Matth.*
 obesum Matth.*
 speculifer Matth.
 Ulkei Matth.

Motschulskium Matth.

sinuatocolle Matth.

Micridium Motsch.

lineatum Motsch.*

Nanosella Motsch.

fungi Motsch.

Throscidium Matth.

invisible Niet.*

Nossidium Erichs.

posthumum Matth.
 Americanum Motsch.

Species marked * have not yet occurred within the United States.